



CÒMHDHAIL ALBA TRANSPORT SCOTLAND

Speed Limit Review: The Assessment Process



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1.0 Introduction

The trunk road network is a vital link connecting cities and rural communities, as well as ports and islands. It represents just 6% of the Scottish road network but it carries 37% of all traffic and 62% of heavy goods vehicles.

The UK Government's 1997 White Paper on the *Future of transport* included a commitment to develop a speed policy taking account of the contribution of reduced speeds to environmental and social objectives as well as to road safety.

This resulted in *New directions in speed management*¹, which concluded that a national framework was needed for determining speeds on all roads, with limits that are rational, consistent, readily understood and appropriate for the circumstances.

Road Authorities continue to have the flexibility to set local speed limits that are right for the individual road, reflecting local needs and taking account of all local considerations. Revised guidance entitled *Setting Local Speed Limits*², issued in August 2006 by the Scottish Government outlines the framework to determine appropriate speeds on all single and dual carriageway roads in Scotland.

Following the issuing of this guidance, Transport Scotland instructed its Operating Companies to carry out a review of the speed limits on the trunk road network. Separate reports have been produced by each Operating Company for each of their applicable routes outlining the findings of the review.

This report outlines how the Speed Limit Review process has been undertaken in line with the revised guidance. This report should be read in conjunction with the route specific speed limit assessment reports.

¹ New Directions in Speed Management, DETR (available at [national archives](#))

² Setting Local Speed Limits, Enterprise Transport and lifelong learning department, Scottish Government, 2006, available at www.transportscotland.gov.uk/speedlimitreview

2.0 The assessment

2.1 Background

Scottish government guidance issued in August 2006 entitled *Setting Local Speed Limits* outlines the framework to determine appropriate speeds on all A and B class roads in Scotland (for clarity, motorways were not covered in this guidance and hence, not included in this review). This guidance stated that road authorities continue to have the flexibility to set local speed limits that are right for the individual road, reflecting local needs and taking account of all local considerations.

The underlying approach to speed management policies should be to achieve a 'safe' distribution of speeds which reflects the function of the road and the impacts on the local community. It also seeks a balance between costs and benefits and also considers environmental, economic and social effects as well as any reduction in casualties that may be achieved through change in speed limit.

A key factor when setting a speed limit is what the road looks like to the road user. *Setting Local Speed Limits* promotes that drivers are likely to expect and respect lower speed limits where they can see potential hazards. A consistent approach to speed limits across the trunk road network will support and enforce the influence on drivers when deciding on an appropriate speed to drive.

Reflecting the function of the road with an appropriate speed limit should for example consider the conditions and needs of pedestrians, cyclists and other vulnerable road users such as children in areas of significant residential and/or commercial development, balanced in line with delivering the mobility requirements of a route with strategic importance to the Scottish economy.

Different road users perceive risk and appropriate speeds differently. Similarly, the level of risk within rural locations will differ from urban sections of roads. Deciding an appropriate speed limit is based on a firm theoretical basis and prescriptive guidance for rural and developed areas respectively. This is provided in *Setting Local Speed Limits* guidance and has been used as the basis for the review of speed limits on the trunk road network. These methods also take account of the function of the road taking into account safety³, mobility⁴ and environmental⁵ factors of a route.

Section 2 of this report describe in more detail the process used for assessment of urban and rural environments respectively.

2.2 Assessment terminology

The Speed Limit Review has required the use of various theoretical and technical methods and terminology. This section of the report outlines these, as is necessary, to understand the outcomes of the Speed Limit Review.

³ Accident history

⁴ Including aspects such as the level and type of traffic on the route

⁵ The character of the route and surrounding communities

2.2.1 Road hierarchy

Road Authorities have been encouraged to adopt *Safety Management Guidelines*⁶ published by the Institute of Highways and Transport for both urban and rural localities. These guidelines describe road hierarchies which reflect the function of a road and the mix of traffic carried. This has been used in the decision making process for setting an appropriate speed limit relating to a road function (mobility). Two hierarchies are described; 'upper tier' which is used for roads with a mainly strategic function and 'lower tier' for a road which has a mainly local access function.

By their definition as a 'key strategic route providing quick and efficient transport between important residential and commercial centres' all trunk road routes have been considered as 'upper tier' for the purpose of this review.

2.2.2 Defining a road's character

Setting Local Speed Limits suggests that separate assessments should be made for each section of road of 600 metres or more for which a separate speed limit might be appropriate.

The trunk road network differs greatly in nature and character throughout Scotland. Since road characteristics and what the road looks like to the user helps to decide on an appropriate speed limit, it has been necessary to split the route into sections of similar character and assess each section in turn.

To improve the clarity, transparency and consistency of the review process across the Scottish trunk road network, Transport Scotland created characteristic categories to classify the character of a section. This allowed comparison with other similar areas on the trunk road network. Each section was assigned a category which can consist of one or two parts. The first part of the category describes the process used to undertake the assessment (rural, urban/ village/development). The second part, if applicable, indicates the level of access/ egress on to the section. These categories are shown in table 1.

Table 1: Characteristic categories

Symbol	Section character
A1	Rural road alignment: should have wide verges, good overtaking opportunities, large radii bends, good visibility, appropriate lane widths
A2	Rural alignment: which may include some bends and undulations, verges should be average quality.
A3	Rural alignment: may include sharp bends, narrow verges, frequent double white line systems, undulating roads with low forward visibility
U	Urban environment
V	Village meeting village criteria ⁷
SC	Rural section containing frontage development warranting special

⁶ Urban Safety Management Guidelines, Institute of Highways and Transport and Rural Safety Management Guidelines, Institute of Highways and Transport

⁷ Village criteria, as defined in Department for Transport (2004), Traffic Advisory Leaflet 1/04 'Village Speed Limits' as being 20 or more houses fronting the road and a minimum length of 600m.

	consideration
J1	Low number of junctions and accesses within section
J2	Frequent junctions and accesses within section

An example of how sections of a route may be split according to their character and how these sections would then be classified has been given in Figure 1 below.

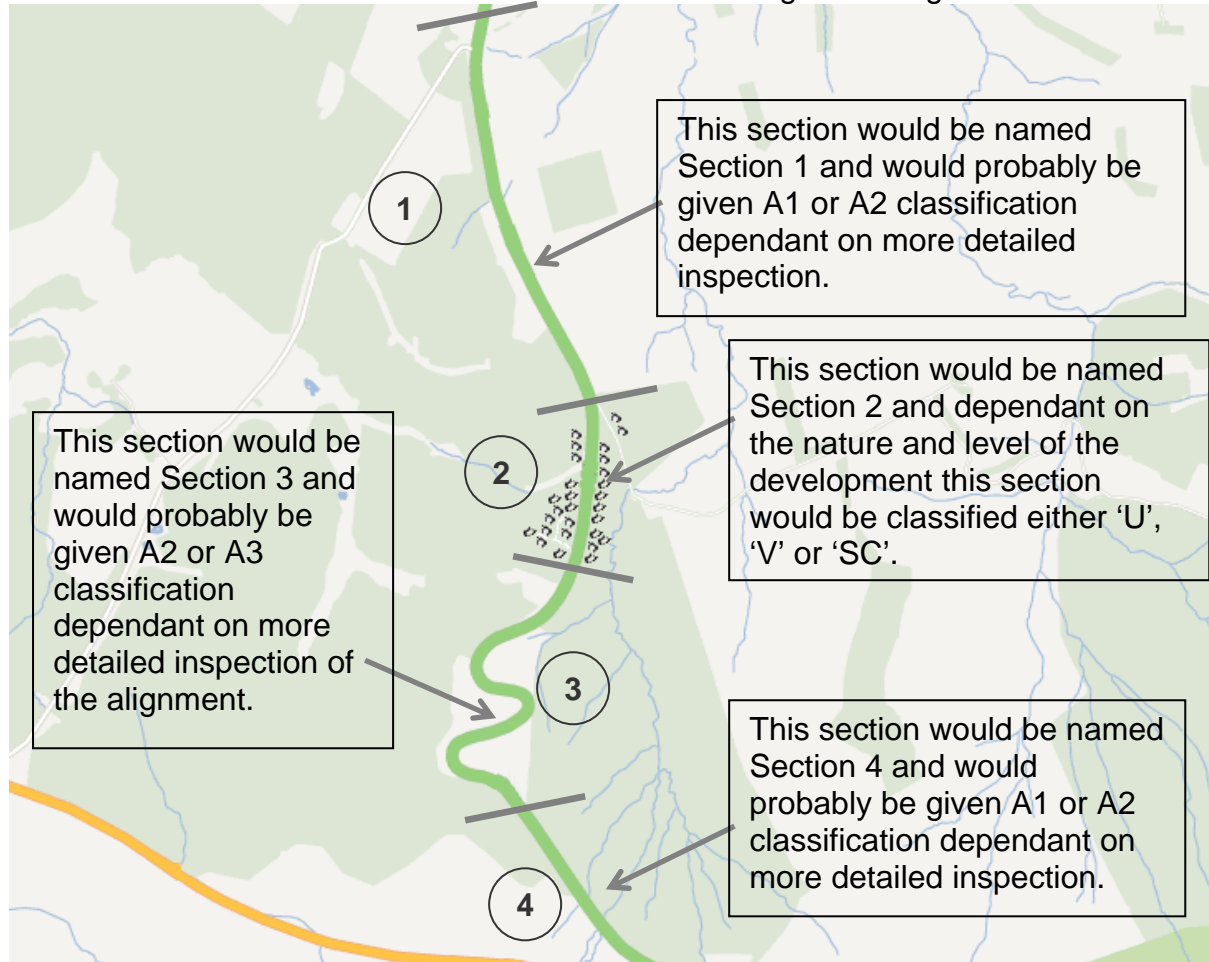


Figure 1: Example sections

2.3 Urban speed management

Principally, those sections in areas pertaining to a town or city. A key principle of speed management in urban areas is to ensure that appropriate traffic travels on appropriate roads at appropriate speeds. Ensuring an appropriate speed limit in urban areas is an important factor in urban safety and it also plays a part in balancing mobility requirements and the safety of all road users, which may include non motorised users (NMU).

The standard speed limit for urban areas is 30mph. However there are some circumstances when a 40mph or 50mph speed limit may more appropriate. *Setting Local Speed Limits* provides more detail on when 40mph and 50mph limits would be suitable, this is summarised in table 2 below.

Table 2: Suitable speed limits in urban areas

Speed limit	Characteristics
30 mph	Standard speed limit for urban areas
40 mph	Higher quality suburban roads or those on the outskirts of urban areas where there is little development.
50 mph	Higher quality roads where there is little or no development. Usually dual carriageway ring or radial routes which have become partially built up.

Where a section has been assessed as an urban area, the character, level of development and facilities present have been compared against this guidance. This process has been applied to both single and dual carriageway roads in areas considered, urban.

20mph speed limits are not covered within the guidance in *Setting Local Speed Limits* and have therefore not been considered under this review.

2.4 Rural Speed Management

2.4.1 Overview

On the basis that changing the speed limit on rural roads should be considered as only one part of rural safety management, the assessment framework given in *Setting Local Speed Limits* provides local flexibility of choice within an overall consistent procedure; which takes account of traffic and road user mix, geometry, general characteristics of the road and its surroundings, and the potential safety and environmental impacts.

Table 3 below, illustrates the speed limits for upper tier routes in rural areas, which over a period of time roads authorities are encouraged to move.

Table 3: Suitable speed limits in rural areas

Speed limit	Characteristics
60 mph	High quality roads with few bends, junctions or accesses
50 mph	Lower quality strategic roads which may have a relatively high number or bends, junctions or accesses
40 mph	Where there is a high number of bends junctions or accesses, substantial development, where there is a strong landscape reason, or where the road is used by considerable numbers of vulnerable road users
30 mph	Should be the norm in villages where appropriate

The process used for the assessment differs dependant on the character and type of road, the categories discussed in section 2.2.2 of this report will help to identify which process has been used. The process differs for:

- Single carriageway rural roads
- Dual carriageway rural roads, and;

- Villages and areas of significant residential/ commercial development

2.4.2 Single carriageway rural roads

The assessment framework, originally developed by the Transport Research Laboratory (TRL) Limited, described in *Setting Local Speed Limits* is based on the presumption that when taking into account safety benefits, mobility costs plus environmental and accessibility factors, single carriageway roads should operate at speeds that help maximise operational efficiency.

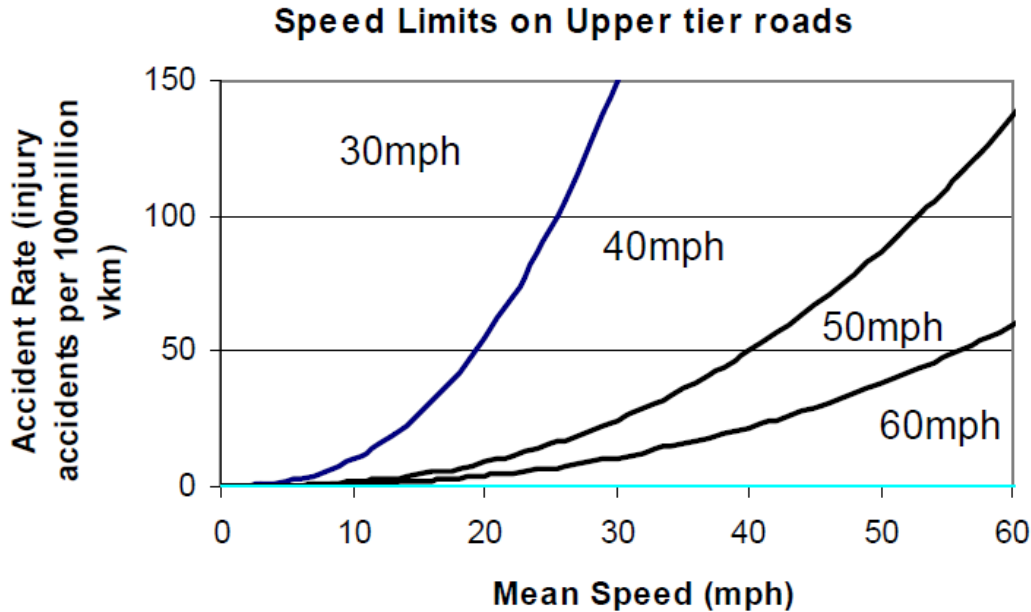
The process follows a series of steps which, for the purpose of this report have been simplified below:

1. A route is split into sections of similar characteristics, and allocated an appropriate category. An example of this process is given in section 2.2.2 of this report.
2. Where the level of development in a section has been designated with either 'U', 'V' or 'SC', these sections will be considered in line with the process laid out in the Speed Limit Review guidance as appropriate.
3. The mean speed of vehicles in that section is measured⁸ and the accident rate⁹ for the section calculated.
4. The mean speed and accident rate are then checked against the threshold (this is usually 35 accidents per 100 million vehicle kilometres for upper tier single carriageway roads) and an assessment is made of the suitability of the mean speed in comparison with the suggested speed limits in table 3, character and the other local considerations of the area.
5. The use of the graph¹⁰ shown below has been employed to illustrate this process for the purpose of this report. Accident rates and mean speeds have been plotted on this to show appropriate speeds for an accident rate.

⁸ Section 2.5 of this report provides more detail on this aspect of the assessment.

⁹ Section 2.6 of this report provides more detail on this aspect of the assessment

¹⁰ Speed limit zones in terms of mean speed and accident rate for upper tier road, graph from *Setting Local Speed Limits*, 2006.



6. Where the assessment suggests a lower speed limit may be appropriate, a review of the accidents within the section is then carried out (this is described in more detail in section 2.6) to consider whether accident remedial measures could be implemented to reduce the accident rate to a more acceptable rate, rather than a change in speed limit. *Setting Local Speed Limits* makes it clear that alternative options should always be considered before proceeding with a new speed limit.

Once a decision has been made on an appropriate speed limit for each section using the speed assessment process, speed limits have been considered over the full length of a route as a whole to provide reasonable consistency. The aim of this is to avoid introducing many changes in speed limit over a route which could be confusing to drivers.

2.4.3 Dual carriageway rural roads

Whilst the speed assessment framework outlined in *Setting Local Speed Limits* does not cover dual carriageway rural roads, it does state that dual carriageway roads with segregated junctions and facilities for vulnerable road users would generally be suitable for 70mph speed limits. However a lower limit may be appropriate where, for example, an accident history indicates that this cannot be achieved safely.

In the absence of Scotland-specific guidance on dual carriageways, guidance issued by the Chief Highways Engineer (CHE)¹¹ supplementing the *Setting Local Speed Limits* guidance for the Department for Transport, provides a process of assessment for rural dual carriageway roads. This guidance has been employed for the assessment of rural dual carriageways on the Scottish trunk road network.

¹¹ CHE Memorandum 200/07 – DFT Circular 1/06 Setting Local Speed Limits, Highways Agency, 2007

The process, again, follows a series of steps which, for the purpose of this report have been simplified below:

1. The route is split into sections of similar characteristic. This is described in section 2.2.2 of this report.
2. The accident rate for each section is calculated and then compared against the accident rate thresholds identified in the CHE guidance for the existing speed limit (see Table 4 below).

Table 4: Accident rate thresholds for rural Dual Carriageway roads

Existing speed limit	Accident rate threshold
70 mph	above 40 per 100 million vehicle kilometres
60 mph	above 86 per 100 million vehicle kilometres

3. If a section has an accident rate above that described in point (2.) above, the mean speed of vehicles should then be measured. If the accident rate is not above the threshold, then the existing speed limit is considered acceptable.
4. Where the accident rate is above this threshold, a decision would then be made, based on the current speed limit and the accident statistics, of how to improve the road to reduce the accident level or to look at other methods of improving road safety such as improving enforcement, use of technological developments etc.

2.4.4 Villages and areas of significant residential/ commercial development

This section applies to rural areas where special consideration has been given to the section due to the level of development present. These are areas with a significant amount of development present.

Transport Scotland has used the village definition given in *Village speed limits*¹² which identifies village criteria as 20 or more properties directly fronting the road and a minimum length of 600m. Where a section meets these criteria, a 30 mph limit would usually be appropriate.

The guidance also appreciates that where the village criteria is not met and there is a lesser degree of development, there may still be a need for a lower limit than the national limit. This should also consider the level of severance by strategic traffic movements, the views of the Police and issues raised by the local public as well as other appropriate considerations.

An assessment has also been made based on each of these sites in comparison with similar locations across the trunk road network with the end goal of achieving a consistent approach to speed limits across the network.

¹² 'Village speed limits', Traffic advisory leaflet 1/04, Department for Transport, 2004

Some of the key features that have been considered for each section are:

- the suitability of provisions for non motorised road users (pedestrians/cyclists)
- the density of development
- level of potential conflict
- provisions of parking and waiting restrictions

2.5 Speed assessment

Setting Local Speed Limits indicates that mean speeds¹³ reflect what the majority of drivers perceive to be an appropriate speed to be driven on a road and therefore mean speeds should be considered in determining local speed limits.

Setting Local Speed Limits does not provide a specific method for gathering mean speed data on a section of road. Where the mean speed is required as part of the assessment process, Transport Scotland's Operating Companies have employed the guidance in advice note *Vehicle speed measurement on all purpose roads*¹⁴, which outlines methods of gathering speed data and the process used to set up and use data recording instruments.

For the vast majority of mean speeds, spot speeds¹⁵ have been measured using devices such as radar speed meters or inductive loops then averaged. Where it has not been possible to gain a speed reading using this method, journey speeds¹⁶ have been measured. There may also be specific sections where due to their nature, or other aspect, speed surveys have not been able to be undertaken. Details of where this has occurred will be noted in the route assessment report.

2.6 Consideration of accident history

Setting Local Speed Limits indicates that before introducing or changing a speed limit, road authorities will wish to satisfy themselves that the benefits exceed the disbenefits.

In addition, for rural areas (i.e. generally speed limits greater than 30mph) where an accident rate is above the threshold for the type of road and especially where the mean speed suggests the existing speed limit is appropriate, a further assessment of the accidents has been undertaken. This will indicate whether an existing limit is appropriate to the character of the road and considers the mix of traffic using the road which may include non motorised users. The aim of this assessment is to identify whether methods other than a change to the speed limit, such as accident reduction measures, would be effective in reducing the accident rate. The guidance

¹³ The average speed recorded.

¹⁴ Design Manual for roads and bridges, TA 22/81, Vehicle speed measurement on all purpose roads

¹⁵ The instantaneous vehicle speed measured at a point.

¹⁶ The vehicle speed measured over a length of road.

highlights that alternative measures of reducing accidents should always be considered before implementing an alternative speed limit.

Setting Local Speed Limits suggests checking the proportion of different accident types against thresholds recommended within *Accident analysis on rural roads*¹⁷, to decide whether site or route treatment may be appropriate before deciding the speed limit.

Initial application of this assessment through the review however, found that the actual accident numbers were, in general, too low to check the proportion of different accident types against the thresholds recommended in *Accident Analysis on Rural Roads*. Furthermore the data used in this report is Great Britain wide and this may not accurately represent the proportion of accident types on Scottish routes.

Transport Scotland concluded therefore that this method would not be used in the Speed Limit Review on Scottish trunk roads and accident analysis (where a section is above the given thresholds) has been undertaken instead.

To ensure that accident analysis was carried out in a consistent method across all Scottish trunk road routes, an assessment of accidents where the accident rate is above the threshold identified in the guidance documents has been conducted using the process for investigating and defining collision problems presented in the *Road safety engineering manual*¹⁸. This process has been used on all reviews with the aim of identifying common causation factors in the accidents which could be mitigated through accident remediation methods other than changing the existing speed limit. Personal injury accident data contained in Transport Scotland's Scottish Executive Road Information System (SERIS) has been used to inform the Speed Limit Review. This uses data on personal injury accidents supplied by the eight Scottish Police forces. Damage only accidents have not been considered for the purpose of the Speed Limit Review.

The Review guidance does not specify a timescale over which the accidents for each section should be reviewed. The *Road safety engineering manual*, used as the basis for considering accidents, suggests that a suitable timescale for analysis of single sites is 3 or 5 years. The review has therefore provided accident data and calculated accident rates over both a 3 year period from January 2008 to December 2010 inclusive and a 5 year period from January 2006 to December 2010 inclusive.

The default accident rate in the assessment has been the 3 year accident rate. Where the 3 year accident rate is borderline, the 5 year accident rate is also looked at to see if it is above the threshold.

Accidents occurring on the circulatory carriageway of a roundabout have not been included in the assessment of the accident rate. These accidents have not been considered to be related to the speed limit on the road. Accident clusters or high

¹⁷ Accident Analysis on rural roads – a technical guide, Published project report PPR026, TRL Limited, 2004

¹⁸ The Royal Society for the Prevention of Accidents, Road Safety Engineering Manual

accident rates at these locations would be highlighted and investigated as part of the ongoing strategic road safety plan.

2.7 Use of the Framework spreadsheet

Setting Local Speed Limits advises the use of a spreadsheet tool created by TRL Limited to enable more detailed analysis of an appropriate speed limit choice where a decision is borderline between two speed limits.

The use of this spreadsheet has not been employed as part of the Speed Limit Review by Transport Scotland. The outcomes of this tool rely on changes in accidents and mean speeds, however there is little evidence given to support the change in actual vehicle speeds when a speed limit is changed. Where a change has been proposed, the mean speed is generally already at or below any proposed speed limit. Since no physical traffic calming measures have been imposed to alter the character of the route (and in turn the traffic speeds) it is unlikely that a change in speeds will be demonstrated. Therefore the economic outputs from this spreadsheet are not fully justified.

The main aim of the review is to achieve consistency on the network. As it is considered unlikely that noteworthy changes in driver speed will be seen, it is therefore unlikely that there will be a significant change in either accident rates or mean speeds to validate the use of this tool.

2.8 Consideration of roundabouts

Setting Local Speed Limits states that where several different speed limits enter a roundabout, the roundabout should be restricted as the same level as the majority of approach roads. Where there is an equal division, for example where a 30 mph road crosses one with a limit of 40 mph, the roundabout itself should take the lower limit.

Due to their strategic nature and the various types of vehicles that utilise the trunk road network, these roads generally carry more traffic than the local roads joining roundabouts on a trunk road.

Transport Scotland is of the view that incorporating additional speed limits on a roundabout on the trunk road network where there is already a large amount of signage would lead to sign clutter. In addition to this, the guidance specifies that speed limits should not be used as an attempt to solve the problem of an isolated hazard and that road safety measures should be considered if there is an identified accident problem.

Roundabouts on the trunk road network are considered as part of the annual assessment of accidents through the Moving Cursor Programme (MCP)¹⁹ and therefore roundabouts and their approaches have not been considered specifically as part of this review.

¹⁹ A software tool for screening accident records on the entire trunk road network to identify accident cluster sites.

2.9 Consultation

2.9.1 Police consultation

Having reviewed all sections of the applicable trunk road network in Scotland, Transport Scotland then consulted with all 8 Police forces. During November and December 2011, Transport Scotland met with each of the 8 Scottish Police forces to consult on the outcomes of the Speed Limit Review. Through ongoing liaison with the Police forces, we have attained agreement with all final proposals.

2.9.2 Local Authority engagement

Throughout 2011 Transport Scotland met with the Scottish local authorities at the authorities' regular Society of Chief Officers of Transportation (SCOTS) fora. These discussions included items on the Review including Transport Scotland's approach. Transport Scotland also invited the authorities to raise any issues to be considered in the speed limit review of the trunk road network. No issues were raised, with all Local Authorities noting their agreement with this process and confirmed that they were undertaking their Speed Limit Reviews in line with the same guidance.

2.9.3 Community consultation

Setting Local Speed Limits does not provide prescriptive guidance detailing how and when consultation should take place with local communities. Due to the vast nature of the network and the large amount of interest and communication expected through this process, Transport Scotland will consult with local communities formally during the order making process for any change in speed limit that may be promoted.

Transport Scotland recognises that speed limits can be a sensitive area for many communities. In making an assessment of the speed limit for each section of the Scottish trunk road network, Transport Scotland asked its Operating Companies to recognise representations received from local residents, as well as MSPs and MPs, in their assessment.

3.0 Cost and benefit summary

3.1 Government's Purpose and Strategic Objectives

The purpose of the Scottish Government is underpinned by five Strategic Objectives; Wealthier and Fairer, Healthier, Safer and Stronger, Smarter, and Greener. The Speed Limit Review contributes principally to the Smarter and Safer and Stronger objectives and also to the Wealthier and Fairer objective.

The main aim of the Speed Limit Review is to ensure that speed limits are consistent, understood by drivers and appropriate for their environment and circumstances for their use. Central to the methodology for reviewing speed limits on rural roads is the presumption that roads should operate at speeds near to those that give the minimum total costs taking safety, mobility and environmental impact into account.

Setting Local Speed Limits advises that before introducing or changing a speed limit, Road Authorities will need to satisfy themselves that the benefits exceed the disbenefits. It suggests a number of factors which could be considered as part of this, many of which do not have monetary values associated with them. A brief synopsis follows, which describes how each of these areas has been considered by Transport Scotland in the Speed Limit Review.

3.2 Accident and casualty savings

The Accident rate has been considered as a part of the Speed Limit Review. This is a key part of *Setting Local Speed Limits* speed assessment framework and this framework has been applied throughout the review as described in section 2 of this report.

Whilst the Speed Limit Review is not specifically a casualty reduction exercise, the potential to positively influence accident statistics is still a factor in the overall decision of setting the speed limit on rural roads for Transport Scotland. Research carried out by the Transport Research Laboratory (TRL) shows that the faster drivers chose to travel, the more likely they are to be involved in an accident and a 1 mph reduction in average speed can reduce the accident frequency by 5% (TRL, 1993 and 2000). Whilst the assessment framework has been based on this and similar research, in general, Transport Scotland has recommended a change in speed limit where the current observed mean speed is already at or below the new proposed speed limit, thus consistent with the existing driver perceptions of hazard and in line with the character of the road.

The Speed Limit Review has the aim of making speeds more consistent throughout the road network and more in line with drivers' perception of hazard. Transport Scotland is of the view that changing the speed limit is unlikely to result in a significant change in drivers' mean speed where no alteration has been made to the physical character of the road.

Where a change in speed limit has been proposed further accident analysis has been carried out. Where suitable, additional measures will be considered to positively influence driver behaviour in those sections.

Accident statistics have not been considered for the assessment of speed limit in areas of urban nature or those which have development significant enough to warrant special consideration. In line with the guidance, the assessment has been based on the character of the road and the level of development and other areas.

3.3 Traffic flow and emissions

Emissions vary depending on a number of factors relating to individual vehicles, particularly how they are driven and also the number of vehicles. Transport Scotland has considered that as it is unlikely that there will be significant changes in driver speed where changes have been proposed and that the impact on traffic flow and emissions will be minimal. Hence, emissions have not been directly considered as part of this review.

3.4 Journey times and Journey time reliability

Finding a balance between risk of an accident, travel efficiency and environmental impact is more difficult on rural roads. *Setting Local Speed Limits* states that higher speed is often perceived to bring benefits in terms of shorter travel times for people and goods. This is a key consideration on a strategic route such as a trunk road. *Setting Local Speed Limits* identifies however that when traffic is travelling at constant speeds, even at a lower level, it may result in shorter and more reliable overall journey times. Transport Scotland consider it unlikely that there will be significant changes in driver speed where changes have been proposed, thus the impact on journey times and journey time reliability will be minimal and therefore this has not been directly considered as part of this review.

3.5 Environmental impact

Since no physical speed reduction measures (apart from new signage) have been proposed or considered as part of the implementation process, consideration has not been taken of the environmental impact of a potential scheme. This will be considered at design stage of any proposed changes in speed limit.

3.6 Issues raised by the local community

The guidance does not require formal public consultation until the order making process for any new speed limit. Transport Scotland has however, as part of the Speed Limit Review, cross-referenced correspondence relating to the speed limit on key sections of the trunk road network. Where appropriate, this has been considered as part of the review.

3.7 Level of severance by Strategic Traffic Movements

Setting Local Speed Limits lays out considerations for speed limits within communities where there are urban environments or rural areas which have been

considered specifically due to their level of frontage development. Each of these sections has been considered separately as part of the review and details of each of these individual assessments has been given in the reports on each reviewed route. In reviewing the attributes of each area, a consistent approach has been applied across the trunk road network.

3.8 Conditions and facilities for vulnerable road users

Facilities and conditions for vulnerable road users in each of the individual sections have been considered where applicable as part of the assessment. Where this has influenced the decision made on the speed limit at a particular location, this has been referred to in the individual route reports. In reviewing the attributes of each area a consistent approach has been applied across the trunk road network.

3.9 Cost, maintenance and visual impact

Setting Local Speed Limits advises that the associated engineering and other physical measures (i.e. erection of new speed limit signage) needed to implement a change in speed limit and their maintenance will be a consideration when undertaking the review of speed limits.

Consideration has been given to the visual impact of additional signage on the trunk road network. This has been a part of the consistency aspect of the review when considering the speed limits on a route as a whole.

3.10 The cost of enforcement

Consultation with the eight Scottish Police forces has been carried out as part of the Speed Limit Review. In some instances representatives from area safety camera partnerships attended these meetings and provided comment where applicable.

In the majority of cases, where speed changes have been proposed the mean speed will already be in line with the proposed speed limit. Transport Scotland does not envisage that there will be a significant change in mean speed where a change has been proposed since the guidance recommends that mean speeds reflect what the majority of drivers perceive as an appropriate speed to be driven on a road.

In general, the Speed Limit Review aims to give drivers a more consistent message of speed limits. In situations where the current mean speed is higher than the current speed limit and a change (based on the wider considerations of the review) is also proposed, this may free up valuable enforcement resources deployed at these locations. The police will then have the option to redeploy these resources to where speed compliance is a higher priority.

4.0 Implementation and the ongoing review process

Setting Local Speed Limits states that road authorities should keep their speed limits under review with changing circumstances. It also recognises that it will not be possible to bring about all of the changes recommended from the review in a short timescale.

Further copies of this document are available, on request, in audio and large print formats and in community languages (Urdu; Bengali; Gaelic; Hindi; Punjabi; Cantonese; Arabic; Polish).

اس دستاویز کی مزید کاپیاں آڈیو کیسیٹ پر اور بڑے حروف کی چھپائی میں اور کیوئی کی زبانوں میں طلب کیے جانے پر دستیاب ہیں، برائے مہربانی اس پتے پر رابطہ کریں:

এই ডকুমেন্ট-এর (দলিল) অতিরিক্ত কপি, অডিও এবং বড়ো ছাপার আকারে এবং সম্প্রদায়ের ভাষায় অনুরোধের মাধ্যমে পাওয়া যাবে, অনুগ্রহ করে যোগাযোগ করুন:

Gheibhear lethbhreacan a bharrachd ann an cruth ris an èistear, ann an clò mòr agus ann an cànanain coimhearsnachd. Cuir fios gu:

इस दस्तावेज़/कागज़ात की और प्रतियाँ, माँगे जाने पर, ऑडियो टैप पर और बड़े अक्षरों में तथा कम्प्यूनिटी भाषाओं में मिल सकती हैं, कृपया संपर्क करें:

ਇਸ ਦਸਤਾਵੇਜ਼/ਕਾਗਜ਼ਾਤ ਦੀਆਂ ਹੋਰ ਕਾਪੀਆਂ, ਮੰਗੇ ਜਾਣ 'ਤੇ, ਆੱਡਿਓ ਟੇਪ ਉੱਪਰ ਅਤੇ ਵੱਡੇ ਅੱਖਰਾਂ ਵਿਚ ਅਤੇ ਕੰਮਿਊਨਿਟੀ ਭਾਸ਼ਾਵਾਂ ਦੇ ਵਿਚ ਮਿਲ ਸਕਦੀਆਂ ਹਨ, ਕ੍ਰਿਪਾ ਕਰਕੇ ਸੰਪਰਕ ਕਰੋ:

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ISBN: 978-1-908181-59-6

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Published by Transport Scotland, October 2012