

ABERDEEN CITY COUNCIL

COMMITTEE	Enterprise Planning and Infrastructure
DATE	29 August 2013
DIRECTOR	Gordon McIntosh
TITLE OF REPORT	Notice of Motion by Councillor Malone – Review of Rural Speed limits Countesswells, Baillieswells and Blacktop area & Review of Rural Speed Limits
REPORT NUMBER:	EPI/13/083

1.0 PURPOSE OF REPORT

This is a background report which responds to the decision of the Enterprise Planning and Infrastructure committee on 22 January 2013 in response to the Notice of Motion by Councillor Malone - Review of Rural Speed Limits in Countesswells, Baillieswells and Blacktop Area, report number EPI/13/004.

2.0 RECOMMENDATIONS

It is recommended that the Committee:

- 2.1 Note the content of this report and that Officers have undertaken the review/assessment in line with Scottish Government and Department for Transport guidance.
- 2.2 Agree that no further action should be taken with regard to the implementation of a lower speed limit.

3.0 FINANCIAL IMPLICATIONS

- 3.1 The provisional cost of changing the Traffic Regulation Order (TRO) and appropriate signing from national speed limit to 40mph speed limits is estimated at a total of £15,000, comprising £13,500 for terminal signs on entry to the proposed routes and repeater signs placed 350m apart throughout the route and £2,500 for amendment of the TRO.
- 3.2 There would be far wider financial implications on the Council should such a precedent be made and the consequences of approving the speed limit change. The extent of the rural road network, some 150km, is much greater than the area currently being considered which may

result in additional expenditure in the region of £280,000 where no justification exists.

4.0 OTHER IMPLICATIONS

- 4.1 The Initial response from Chief Inspector Ian Wallace, Police Scotland, has been received advising that Police Scotland is not supportive of the reduction in speed limit being applied to these routes. The stance is being taken on the basis of there having been an extremely limited number of injury related collisions where excessive or inappropriate speed has been a contributory factor, coupled with relatively low recorded speeds obtained during speed surveys. Further details of the Police response are included in Section 13.0. Police Scotland would prefer to target enforcement resources to locations where it is most beneficial and are not prepared to enforce locations where the need for speed limit reduction is not backed by evidence.

5.0 BACKGROUND

5.1 Notice of Motion - Councillor Malone

- 5.1 At the Enterprise, Planning & Infrastructure (EP & I) Committee meeting of 22 January 2013 the Council referred the following Notice of Motion by Councillor Malone,

"In view of the recent decision to begin the statutory consultation process to reduce the speed limit from the Kingswells roundabout to Blacktop from 60mph to 40mph, that officers be instructed to report on the implications of this for the neighbouring rural network including Countesswells Road, Kirk Brae and Baillieswells Road, and on the need to ensure consistency of speed limits in the area, instruct the Director of Corporate Governance and Head of Finance to identify an appropriate budget from which to fund any works which officers may propose." This report responds to that Notice of Motion.

- 5.3 At the EP & I meeting of 11 September 2012, officers submitted report number EPI/12/161 "Review of the National Speed Limit on the C128C Road between its junction with the A944 at Kingswells Roundabout and the existing 40mph restriction to the north of Cults", following a Notice of Motion from Councillor Boulton.

5.4 Review of Speed Limit on A944 Westhill to Hazlehead

- 5.4.1 As part of the Committee discussion on report number EPI/12/161, Councillor Yuill raised the issue of the reduction of the speed limit on the A944 from the city boundary at Westhill to Hazlehead, from 50mph to 40mph. The Convener asked for officers to report back to Committee and this was supported by Councillor Boulton and Councillor Delaney,

who further asked that officers look at and report back on the possibility of having fixed speed cameras to enforce any speed reduction. This was agreed by Committee.

5.4.2 Due to the differing characteristics of the A944 to that of the minor road network it is the subject of a separate report to this committee.

6.0 ROUTE BACKGROUND INFORMATION

6.1 In order to address the notice of motion presented by Councillor Malone, it has been necessary to carry out speed and road collision surveys. The roads surveyed lie to the west of Aberdeen City, linking Kingswells in the north to Cults in the south. The routes are subject to the national speed limit (60mph) for their length until the southern residential section of the C128C Kirk Brae and the C129C Baillieswells Road which forms a 40mph "buffer zone" to the north of Cults, with the remaining section to the junction with the A93 being lit, making it a mandatory 30mph within the residential area.

In general, these are single lane unclassified roads between 5.5 and 6.5m in width, with narrow grass verge along their length. The routes have a national speed limit (60mph) for the road type and are rural in nature, having a winding alignment with occasional sharp bends with no significant settlements along the routes.

The locations are shown in Appendix 2 and identified as below:

- C128 Kingswells to Cults junction (Route 1)
- C128 Kirk Brae (Route 2)
- C127 Blacktop Road (Route 3)
- C127 Countesswells Road (Route 4)
- C129 Baillieswells Road (Route 5)

6.1.1 The routes are heavily trafficked on weekdays with significant volumes of commuter traffic travelling to the city centre and the wider industrial areas of Dyce, Westhill and Altens. It is expected that these volumes of commuter traffic, particularly those using the north/south routes such as Kirk Brae and Baillieswells, will be reduced by approximately 75% when the Aberdeen Western Peripheral Route (AWPR) is completed.

6.1.2 Although major developments are planned for the Countesswells area, the existing speed limit will be reviewed locally as part of the planning process. These new settlements along these routes will take into account the number of properties, vehicle volumes and speed and the type of road user to establish the appropriate speed limit.

6.1.3 On many of these roads, the majority of drivers are travelling below, sometime significantly below, the speed limit due to the characteristics

of the roads. This is especially evident on the surveyed routes, as shown in Appendix 2.

7.0 SPEED LIMIT ASSESSMENT/SETTING NATIONAL SPEED LIMITS

- 7.1 The Department for Transport (DfT) Circular 01/2013 Setting Local Speed Limits states in its Key Points; “speed limits should be evidenced and self-explaining and seek to reinforce people's assessment of what is a safe speed to travel. They should encourage self-compliance. Speed limits should be seen by drivers as the maximum rather than a target speed.”
- 7.2 This guidance is used as the basis for assessments of local speed limits, for developing route management strategies and for developing the speed management strategies which are included within Local Transport Plans.
- 7.3 The guidance should not however be used in isolation, but read in conjunction with the more comprehensive advice on these matters set out in the appropriate Traffic Advisory Leaflets and with the relevant legislation, including the Traffic Signs Regulations and General Directions 2002 (TRSGD 2002)

The DfT Circular 01/2013 further states:-

“Speed limits are, however, only one element of speed management. They should be part of a package along with other measures to manage speeds which includes engineering and landscaping standards that respect the needs of all road users and raise the driver’s awareness of the environment, together with education, driver information, training and publicity. Within their overall network management responsibilities, these measures should enable traffic authorities to deliver speed limits and driven speeds that are safe and appropriate for the road and its surroundings, as well as help drivers to be more readily aware of the road environment and assess their own appropriate speeds at all times.”

Furthermore, paragraph 22 of the same document states:-

“If a speed limit is set in isolation, or is unrealistically low, it is likely to be ineffective and lead to disrespect for the speed limit. As well as requiring significant, and avoidable, enforcement costs, this may also result in substantial numbers of drivers continuing to travel at unacceptable speeds, thus increasing the risk of collisions and injuries.”

Paragraph 41 goes on to state:-

“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 a bend, since speed limits are difficult to enforce over such a short length. Other measures such as warning signs, carriageway markings, junction improvements, superelevation of bends and new or improved street lighting are likely to be more effective.”

8.0 RURAL SPEED MANAGEMENT

- 8.1 The National Speed Limit must be considered in the context of the environment in which it generally applies. i.e. either a motorway or trunk road where a national speed limit of 70mph applies, or a single carriageway rural road with a national speed limit of 60mph. There are many similar roads in Aberdeen City, Aberdeenshire and of course nationwide, and the function of the National Speed Limit is to highlight the maximum speed a vehicle can be driven when the road geometry allows this to be carried out in a safe manner. Accordingly, on a narrow rural road a driver must adjust their vehicle speed in order to negotiate the road safely. As previously stated, the majority of drivers are travelling below the speed limit, due to the characteristics of the roads. This is especially evident on these routes where the geometric characteristics include many narrow roads, bends, junctions and local accesses. Appendix 2 shows the 85th percentile speed (the speed at which 85% of the total traffic is travelling at or below) and the mean speeds to be in the region of 10-23mph below the existing speed limits.
- 8.2 Speed limit changes are therefore unlikely to impact significantly on the speeds at which vehicles are travelling. As indicated in the DfT Circular 01/2013, setting the speed limit in isolation is likely to be ineffective. In this instance, engineering measures carried out on the five sites has led to a reduction in both speed and collisions, thus reinforcing the guidance that other measures should only be considered if there is a case to be addressed.
- 8.3 Appendix 3 provides details of collisions recorded by Grampian Police on the 5 routes addressed in this report. As can be seen, there has been no Injury Accidents on the C128C in particular since road safety engineering measures were implemented in 2010.

9.0 ASSESSMENT

- 9.1 Balancing the need to travel with the need to improve the quality of life is a key objective of the Department for Transport. This requires a speed limit policy that will take account of the contribution of travel speeds to environmental and social objectives as well as to road safety.

- 9.2 The DfT Traffic Advisory Leaflet 2/06 “Speed Assessment Framework” supplements the guidance on Rural Single Carriageway Roads set out in DfT Circular 01/2013. The aims of the guidance include:
- the setting of more appropriate local speed limits, including lower or higher speeds where conditions dictate
 - local speed limits which better reflect the needs of all road users, not just motorised vehicles
 - improved quality of life for local communities and a better balance between road safety, accessibility, and environmental objectives, especially in rural communities
 - improved recognition and understanding by road users of the risks involved on different types of road, the speed limits which apply, and the reasons why
 - improved respect for speed limits, and in turn improved self compliance
 - continued reductions in the number of road traffic collisions, injuries, and deaths in which excessive or inappropriate speed is a contributory factor.
- 9.3 The assessment framework above is designed to help achieve an appropriate and consistent balance between safety and mobility objectives on single carriageway rural roads.
- 9.4 The criteria and principles used in this framework forms the basis of both Aberdeen City Council’s Speed Limit Strategy and the current speed limit review and takes into account mean traffic speed and a five year injury accident history.
- 9.5 In most instances, consideration of collision history, road function, mix of road users including presence of vulnerable road users, road geometry, engineering and environment, and actual traffic speed should enable traffic authorities to determine the appropriate limit on single carriageway rural roads.
- 9.6 Roads may have primarily either a through traffic function or a local access function. Both need to be provided safely. Mobility benefits will be more important for roads with a through-traffic function, while environmental and community benefits are likely to be of greater importance for the local access roads. Both of these have been considered in the assessment and weighted in line with the nature and function of the roads.
- 9.7 There may be many roads below A and B classification that serve a mixed through-traffic and access function. Where that traffic function is currently being achieved *without a high collision rate*, these roads should be judged as through-traffic roads. If, however, for all or parts of these roads there is a substantial potential risk to vulnerable road users, these sections should be assessed as roads with a local access function.

- 9.8 Part of the C128C Kingswells to Cults Road includes a forest path network and this is noted, although the general nature of this road is still a through-traffic route. The collision history does not show evidence of any substantial risk to vulnerable road users and this entire route has therefore been assessed as a through-traffic road.
- 9.9 The choice of speed limits should take account of whether there is substantial roadside development and whether the road forms part of a recognised route for vulnerable road users, including whether there is a footway. As stated in 6.1 these routes have neither a footway nor substantial roadside development.
- 9.10 The routes under consideration would therefore be classified as “Upper Tier” routes, catering primarily for through traffic.

10.0 ACCIDENT DATA

- 10.1 Table 1 below shows causation factor results of the accident analysis carried out on all routes over the 5 year period 2008 to 2012. There were a total number of 20 Injury accidents of which there were 8 Serious and 13 slight personal injuries to adults between the age of 16 and 65. There were no child injury accidents. The breakdown highlights the primary contributory factors for the accidents. An individual route analysis is available in Appendix 3.
- 10.2 Although some of the accident causation factors shown in Table 1 would at first glance appear to be speed related, further analysis of the causation factors has shown other influences upon the cause of the accidents. These comprise 12 vehicles hitting objects in carriageway (outwith their control), or slippery road surface due to weather, with the remainder as inappropriate junction manoeuvres or approach to junctions.

Table 1

ACCIDENT CAUSATION FACTOR	No of Accidents	%age of total
Slippery road (due to weather)	7	35%
Disobeyed double white line	3	15%
Junction overshoot	2	10%
Deposit on road	2	10%
Swerved	1	5%
Animal or object in carriageway	1	5%
Loss of control	1	5%
Poor or defective road surface	1	5%
Travelling too fast for conditions	1	5%
Dazzling Sun	1	5%

11.0 SPEED ASSESSMENT

- 11.1 Speeds were taken at locations where it was judged they would potentially be greatest. As shown in Appendix 2, these indicate an average speed used by drivers for bendy sections of road of 38mph to 43mph and 50mph for straighter sections; indicating that the majority of drivers do adhere to the geometry and conditions of the road.
- 11.2 Table 2 shows collision history and average speeds taken at two geographically different parts of the road. Refer to appendix 2 and appendix 3 for speed count and accident locations.

TABLE 2

Route	Description	Existing Speed Limit	85th%ile speed taken on straight (automatic traffic counter)		MEAN speed taken on straight (automatic traffic counter)		Speed taken on bends	Average Daily Vehicle Flow	Length (km)	Years Analysed 2008 - 2012	
			N/B or E/B	S/B or W/B	N/B or E/B	S/B or W/B	(Hand held radar)			Serious Injury Accidents	Slight Injury Accident
1	C128 Kingswells to Cults	60	48	51	42	43	42	7,500	2.0	2	3
2	C128 Kirk Brae	60	51	50	44	43	38	2,000	1.6	1	5
3	C127 Blacktop Road	60	43	40	36	31	38	1,500	4.0	1	4
4	C127 Countesswells Road	60	49	53	42	46	43	3,500	2.8	3	1
5	C129 Baillieswells Road	60	51	48	43	42	38	4,800	2.8	0	0

11.3 From the speed surveys carried out and accident data recorded, together with the daily volume of vehicles using the route, it is shown that traffic speed is low and the number of collisions are low in comparison to the volume of traffic that travel the route. This threshold is well below the level of;

- Upper Tier roads - 35 injury accidents per 100 million vehicle kilometres
- Lower Tier roads - 60 injury accidents per 100 million vehicle kilometres

The speed assessment framework in DfT Traffic Advisory Leaflet 2/06 operates on the principles that the speed limit choice should be guided by whether the accident rate on a section of road is above or below the respective 35 or 60 injury accident thresholds.

11.4 The Average Daily Vehicle Flow as shown in Table 2 identifies the function of the roads assessed as Upper Tier through-traffic routes which have an accident rate threshold of 17 injury accidents per 100 million vehicles kilometres, just under 50% of the threshold required to reassess the speed limits. These figures therefore indicate that the existing speed limits are suitable for the routes.

12.0 IMPLICATIONS

12.1 The DfT Circular 02/2013 paragraph 19 quotes:

“Unless a speed limit is set with support from the local community, the police and other local services, with supporting education, and with consideration of whether engineering measures are necessary to reduce speeds; or if it is set unrealistically low for the particular road function and condition, it may be ineffective and drivers may not comply with the speed limit.”

12.2 It is intended that any new and existing speed limits should be ‘self enforcing’. The review and speed limit strategy should enable drivers to perceive the need to travel at a correct and appropriate speed, leading to a situation where little or no formal enforcement is required.

12.3 If speed limits were to be reduced, consultation would be required with Aberdeenshire Council to continue the ‘flow’ of a reduction in speed limit to their roads. This would require their committee approval to set consistency on routes. It must again be emphasised that there could be significant implications if a precedent is set, given the wider impact this would have with Elected Members seeking to expand on this initiative, which is not supported by accident history or other evidence and which therefore cannot be justified in either in a practical or fiscal sense.

13.0 POLICE SCOTLAND CONSULTATION

- 13.1 During the statutory consultation undertaken as part of this report, Police Scotland commented that if enforcement were to be carried out, the requirement for it would have to be evidenced by the accident record of the road. However, the Police do not believe that the accident record supports the need for enforcement, nor the need for a reduction in speed limits. Police Scotland stated they would have difficulty in estimating costs for any enforcement and declined to provide estimates for roads on which they feel it is not required.
- 13.2 The Initial response from Chief Inspector Ian Wallace, Police Scotland, has been received advising that Police Scotland is not supportive of the reduction in speed limit being applied to these routes. The stance is being taken on the basis of there has been an extremely limited number of injury related collisions where excessive or inappropriate speed has been a contributory factor, coupled with relatively low recorded speeds obtained during speed surveys (see Appendix 4). Police Scotland would prefer to target enforcement resources to locations where it is most beneficial and are not prepared to enforce locations where the need for speed limit reduction is not backed by evidence.

14.0 TRAFFIC MANAGEMENT MEASURES

- 14.1 National guidance advises that, where appropriate, speed management should be addressed by the introduction of engineering measures that are self enforcing particularly where these relate to individual locations within an extended network.
- 14.2 Whilst the assessment that has been carried out does not support a change to the existing speed limit the annual accident scan has indicated small accident clusters that it is felt could be improved by the use of engineering measures. A city wide review has recently been completed of accident cluster sites and it is felt that it would be justified to include sites within the study area as priority sites. Within the current road safety programme it is proposed to carryout surface retexturing at a series of bends and approaches on the C128 section between Kirkbrae and Countesswells Road and on the C127 Blacktop Road. The retexturing will improve skid resistance, particularly in wet conditions and contribute to a reduction in accidents at isolated locations along these routes.
- 14.3 Consideration has also been given to the employment of electronic speed warning signs on the reports study network. However it is felt that the use of such a measure cannot be justified and therefore would not be a recommended road safety intervention at this time.

15.0 CONCLUSIONS

- 15.1 The current national speed limits on these rural roads are considered to be generally appropriate and acceptable. Speeds taken at various points on the route are consistent with the speed limit and reflect the function of the roads and environment. The reduction in speed limit on these roads to 40mph with no supporting collision history nor Police Scotland support would be a costly exercise and is unlikely to reduce the speed at which vehicles travel.
- 15.2 The 5 year collision history for the South Kingswells area is low and further analysis of causation factors has shown they are not speed related. The nature of the routes is rural and this part of the road network naturally lends itself to the application of the national speed limit. A 40 mph speed limit would be unrealistic and perhaps counterproductive.
- 15.3 The AWPR is likely to change the dynamic on this route and any new speed limit should be addressed as changes to the wider road network occur. It is anticipated that 75% of the current traffic flow will migrate from these routes to the AWPR when it opens.
- 15.4 It is recommended the speed limit remains as it is at present. It is therefore recommended this committee takes no further action with regard to the proposal of changing the existing speed limit.

16.0 IMPACT

- 16.1 The content of the report meets with the local Community Plan objectives to continually improve road safety and maximise accessibility for pedestrians and all modes of transport.
- 16.2 The proposals are in line with the Council's Transportation Strategy to improve safety for all road users by continuing to reduce the number of casualties in traffic collisions.

17.0 BACKGROUND PAPERS

Minute of Enterprise, Planning & Infrastructure Committee meeting, 22 January 2013 (Item4).

<http://councilcommittees/mgConvert2PDF.aspx?ID=23944>

Minute of Enterprise Planning & Infrastructure Committee meeting 15 March 2011 (Item 9)

<http://councilcommittees/ieListDocuments.aspx?CId=140&MId=1906&Ver=4>

Minute of Enterprise Planning & Infrastructure Committee meeting 15 March 2011 (item17)

<http://councilcommittees/mgConvert2PDF.aspx?ID=15557>

Minute of Enterprise Planning & Infrastructure Committee meeting 15 March 2011 (Item 27)

<http://councilcommittees/mgConvert2PDF.aspx?ID=21860>

Setting Local Speed Limits

[Guidance for Local Authorities: ETTLD Circular 1/2006](#)

Setting Local Speed Limits

[Setting Local Speed Limits dft Circular 01/2013](#)

SCOTS Additional Guidance: [ETTLD Circular No. 1/2006](#) Setting Local Speed Limits – Speed Limit Review

DfT Traffic Advisory Leaflet 2/06 ([TAL 2/06](#)) Speed Assessment Framework

ACC Adopted Policy for 20 mph Speed Limits – Committee report 16 April 2002

Parliament UK: [Roads: Speed limits](#)

Speed Limit markings @ <http://www.speedlimit.org.uk/index.htm>

The Royal Society for the Prevention of Accidents Rural Road Environment Policy Paper: August 2010

Police Scotland Response 1 May 2013

Police Scotland Response for C128C 15-04-2013

18.0 Consultee Comments

Enterprise, Planning and Infrastructure Committee

Convener: Councillor Barney Crockett emailed 26/7/2013

Vice Convener: Councillor Ramsay Milne emailed 26/7/2013

Enterprise, Planning and Infrastructure Committee

.....
Councillor Marie Boulton

.....
Emailed 26/7/2013
.....

Local Members

Councillor Aileen Malone	Emailed 26/7/2013
Councillor M. Tauqeer Malik	Emailed 26/7/2013

Council Officers

Barry Jenkins, Head of Finance 31-07-2013 No comment	
Jane MacEachran, City Solicitor, Continuous Improvement	Emailed 26/7/2013
Ciaran Monaghan, Head of Service, Office of Chief Executive	Emailed 26/7/2013
Gordon McIntosh, Director of Enterprise, Planning and Infrastructure	Emailed 26/7/2013
Hugh Murdoch, Head of Service, Shelter and Environment	Emailed 26/7/2013
Margaret Bochel, Head of Planning & Infrastructure, Strategic Leadership <i>02-Aug-2013 agree with the recommendations within this report</i>	
Mike Cheyne, Roads Manager	Emailed 26/7/2013
Colin Walker, Community Safety Manager	
Dave Young, Account Manager, Service, Design and Development	Emailed 26/7/2013
Laura Watson, Service Co-ordinator E P & I	Emailed 26/7/2013
Mark Masson, Committee Services	Emailed 26/7/2013

19.0 REPORT AUTHOR DETAILS

Laura Snee
Technical Officer
Road Safety & Traffic Management Team
Tel. (01224) 538054

Email: lsnee@aberdeencity.gov.uk