



Report of the Director of Place

Economy, Environment and Infrastructure Policy Development Committee

20 January 2022

**Speed Control Measures in Residential Areas to include
20mph speed limits**

Purpose:	To provide a brief overview on the background and issues associated with the introduction of speed control measures to support a speed limit of 20mph in residential areas.
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FOR INFORMATION	

1. Introduction

- 1.1 This report has been prepared to provide an overview of the issues associated with the introduction of speed control measures to support a speed limit of 20mph in residential areas. It looks at the funding mechanisms generally used to introduce such schemes as well as the advantages and disadvantages associated with the introduction of measures aimed at managing speeds.
- 1.2 The focus on this issue is increased as a consequence of Welsh Government's proposals to make 20mph the default limit on street lit roads in Wales. The report also provides a timeline for this together with an outline of the processes that will be followed in implementing the change.

2.0 Background

- 2.1 Traffic calming is a tool used predominantly in response to concerns over a pattern of collisions where speed is at the least seen as being a contributory factor; or in situations where recorded traffic speeds are a significant cause for concern. Although the enforcement of the speed limit is the responsibility of the police, high demand for enforcement often stretches available resource, limiting the opportunity for effective speed limit enforcement activities.
- 2.2 Traffic calming can also be a key driver in encouraging the use of public transport, cycling and walking, and discouragement of using the car for non-essential journeys. Traffic calming has a significant role to play in achieving these objectives by improving the safety of vulnerable road users. This supports a raft of policies most particularly it assists in supporting the aspirations of the Active Travel (Wales) Act 2013 and the Well-being of Future Generations (Wales) Act 2015. The introduction of such measures also assists the Council in meeting its obligations under the Road Traffic Act 1998. This requires the Highway Authority to prepare and carry out a programme of measures designed to promote road safety.

3.0 Potential negative impacts

- 3.1 Whilst the introduction of traffic calming can be beneficial in reducing the severity and frequency of collisions there are numerous issues which need to be considered. Whilst traffic calming will see a reduction in speed on the road they are unlikely to be universally popular. Some of the issues and limitations that have been identified include:
- 3.2 Buses – journey times can increase, as can passenger discomfort and concerns about passenger safety (especially when humps or cushions are placed at or near bus stops). There are also some concerns about increased wear to buses.
- 3.3 Emergency services – whilst road traffic cushions are designed to provide minimal disturbance to large emergency vehicles such as fire engines and ambulances, emergency services must be consulted prior to consideration of traffic calming an area, to ensure that emergency response times are considered.
- 3.4 Local environment – traffic calming measures change speed profiles and in some circumstances may lead to higher emission and noise levels. Care needs to be taken to minimise any such adverse effects by encouraging smooth driving patterns, this is generally achieved by ensuring that any features are located at a spacing which discourages excessive acceleration and deceleration, which lead to increased noise and emissions. Studies undertaken by the TRL have shown that in terms of noise and vibration, well designed schemes do not have negative impact in residential areas. However, recent studies show that increased braking

and acceleration patterns may see an increase in emissions and particulates.

- 3.5 Highway Maintenance – The introduction of traffic calming on the existing highway in many cases leads to increased stresses on the existing surface. This in turn decreases the lifespan of the highway in proximity to features, designed to manage the flow of traffic and reduce collisions. In addition, alteration to the flow of water may affect the maintenance requirements of drainage systems. Winter maintenance is also a concern where snow cover of traffic calming features creates difficulties for ploughs.

4.0 Design Process

- 4.1 Good design requires that these issues be considered at an early stage. By doing so, most if not all of the above issues can be identified and addressed.
- 4.2 Early consultations with stakeholders is designed to ensure that the appropriate solutions are introduced for the routes being treated. The use of longer plateaus reduces the impact on buses and emergency service vehicles and the use of these is promoted on sensitive routes.
- 4.3 Furthermore, Highway Authorities have a statutory duty to consult the police (Highways Act 1980) when road hump schemes are proposed for a road or area and they must also post notices in the street and in local papers advertising the scheme. The 1999 Highways (Road Hump) Regulations require consultation with the fire service, ambulance service and organisations representing those who use the road. This process allows designers to identify issues causing concern locally and to tailor the solution to address specific issues that are highlighted.
- 4.4 In terms of environmental considerations, careful design in relation to the spacing of features will avoid the acceleration, deceleration features which leads to increased noise and vibration. Whilst some studies show that there may be an increase in exhaust emissions and braking particulates, these have to be set against the potential road safety and environmental benefits associated with a reduction in collision numbers and severity and achieving modal shift to more sustainable modes of transport. In addition, the design of the traffic calming measures will take into account proximity to properties and prevailing atmospheric conditions to ensure that public health is not compromised.
- 4.5 In maintenance terms, care is also taken to ensure that the existing carriageway surface is free of defects prior to the introduction of traffic calming and that the scheme is designed to support continuation of drainage runs. However, seasonal conditions do inevitably create strains where leaf fall around features places additional demands on street cleansing practices.

5.0 Funding Mechanisms for the introduction of traffic calming schemes

- 5.1 There are currently three principal sources of funding available to introduce speed control measures to support a 20mph limit in residential areas. These are Welsh Government Road Safety Grant, Welsh Government Safe Routes in Communities funding and Members resources via Community Budget/ Fund allocations.
- 5.2 The Welsh Government Road Safety Grant is specifically targeted at accident reduction. The bid process requires detailed analysis of collisions on the route applied for and identifying common patterns of issues. The bid requires an assessment on how the implemented measures will help in reducing the severity and frequency of these collisions and a cost benefit analysis of the suggested improvement. The grant condition requires the authority to monitor the success of the scheme in achieving the targeted outcomes.
- 5.3 The Safe Routes in Communities grant does not place the same emphasis on collision and casualty reduction. This funding is targeted at removing obstacles to sustainable modes of travel in communities, particularly around schools. However, in developing a case for intervention it is necessary to describe the barriers to creating safer walking and cycling routes. Invariably this involves examining the collision statistics in the area as well as demonstrating that excessive speeds are causing local concern and restricting the potential to how local residents choose to make their journeys. However, as with the Road Safety Grant, the Local Authority are required to submit annual monitoring of schemes implemented showing the success of the measures against stated anticipated outcomes.
- 5.4 The final mechanism generally used to introduce measures to address local concerns is through the Community Fund/Budget allocations provided to enable Members to consider issues that are causing concern locally. Whilst these schemes do not require the same levels of analysis as those funded by Welsh Government, the design process has to be similarly rigorous to ensure that the schemes meet the requirements of the local communities.

6.0 National 20mph rollout

- 6.1 At present, the Council make decisions about those routes and areas where the targeted introduction of 20mph limits and zones will provide the greatest benefit to local communities. In fact, a significant number of schools already benefit from 20mph limits on the surrounding highway network. However, Welsh Government are, in conjunction with Local Authorities, developing proposal which will see the default speed limit in built up areas lowered to 20mph. The current programme for this will see the legislation for this be passed by Welsh Government later this year with the physical change taking place on roads in May 2023.

6.2 However, the Welsh government have yet to develop firm proposals. Once this information becomes available, consideration could be given to a further report on this matter.

7. Financial implications

There are no financial implications associated with this report.

8. Legal Implications

There are no legal implications associated with this report.

9. Integrated Assessment Implications

9.1 The Council is subject to the Equality Act (Public Sector Equality Duty and the socio-economic duty), the Well-being of Future Generations (Wales) Act 2015 and the Welsh Language (Wales) Measure, and must in the exercise of their functions, have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Acts.
- Advance equality of opportunity between people who share a protected characteristic and those who do not.
- Foster good relations between people who share a protected characteristic and those who do not.
- Deliver better outcomes for those people who experience socio-economic disadvantage
- Consider opportunities for people to use the Welsh language
- Treat the Welsh language no less favourably than English.
- Ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

9.1.1 The Well-being of Future Generations (Wales) Act 2005 mandates that public bodies in Wales must carry out sustainable development. Sustainable development means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the 'well-being goals'.

9.1.2 Our Integrated Impact Assessment (IIA) process ensures we have paid due regard to the above. It also takes into account other key issues and priorities, such as poverty and social exclusion, community cohesion, carers, the United Nations Convention on the Rights of the Child (UNCRC) and Welsh language.

9.2 As noted, this report is for information only. An IIA assessment will be undertaken to consider the impact on the community and different user groups of any proposed road safety interventions.

Background Papers: None.