

May 2015

Road Traffic (Speed Limits) Bill

To set a maximum speed limit on residential roads of 20 miles per hour

Sustrans Position

Sustrans supports a default 20mph speed limit on residential streets in Northern Ireland as a vital tool in achieving the cycling revolution and improving the safety and quality of life of urban areas.

20mph creates safer streets bringing numerous benefits to places and people. It helps to reduce the risk and severity of collisions, encourages people to walk and cycle and spend more time in an area. The reduced speed makes it easier to cross roads, particularly for children and older people and the whole community benefits including businesses.

People are 7 times more likely to survive a crash at 20mph. As well as injury prevention 20mph promotes healthy exercise and long term savings to health and social care costs.

We welcome the introduction of this Bill but rather than trying to define and sign 20mph streets, we are of the view that 20mph should be the default position.

The main criticism of the Bill is the cost of signage because it suggests signing a new class of 'residential' roads. Sustrans recommends a 20mph default urban speed limit which would only require signs on the few remaining 30mph roads, which would be a much more cost-effective solution. One of the better examples from around the UK, in our opinion, is the approach Edinburgh City Council has taken to the introduction of 20mph zones, which is presented later in this submission.

1. Road safety

Road injuries are among the leading cause of accidental loss of life and disability worldwide. According to the latest available figures there were **seven pedestrians and four pedal cyclists killed on Northern Ireland's roads in 2013 and 162 pedestrians and 42 cyclists seriously injured.**ⁱ

- The North West Public Health Observatory (North West England) calculated an average of 140 killed or seriously injured child casualties could have been prevented across the region each year (based on 2004-08 averages) if all residential areas (other than main roads) had been designated as 20 mph zones.ⁱⁱ
- A 2010 Department for Transport (DfT) publication found the risk of fatal injury to pedestrians rose from under 1% at an impact speed of 20mph to 5.5%, or 1 in 20, at

30mph. It is also worth noting that this report highlighted the risk of fatality at 30mph for elderly pedestrians is 47%, compared with 5% for adults and 4% for children.ⁱⁱⁱ

- There is a clear relationship between the effects of speeds on accident numbers. A study for the Road Safety Division of the Department of the Environment, Transport and the Regions in England found accidents could be expected to fall by between 4% and 6% for each 1mph reduction in average speed.^{iv}
- Lower speeds do not just have a benefit for vulnerable road users such as pedestrians and cyclists but car occupants are also likely to suffer greater injuries at higher speeds.^v
- A 2009 study of London speed limits, published in the British Medical Journal, found that the introduction of 20mph traffic speed zones was associated with a 42% reduction in road casualties.^{vi}
- Other cities that have introduced 20mph speed limits have seen reductions in casualties. For example in Portsmouth it is estimated that 20mph limits have lowered road casualties by 8%, while in Warrington there has been a reduction in collisions of 25% in 20mph speed limit areas; Evidence from the South Edinburgh pilot area also points to a reduction in casualties (20% to January 2014).

2. Community engagement

We feel strongly that community engagement and therefore ownership of these 20mph zones should be an important part of the implementation process. The experience in Edinburgh has demonstrated that this approach has worked with communities and local politicians engaged in the process. **Following pilot projects, the City of Edinburgh Council voted in January 2015 to introduce 20mph in residential areas which will cover more than 80 per cent of streets, including the whole of the city centre, and comes into effect from next year.** This is not being implemented as a 'blanket roll-out' but each street earmarked for 20mph was selected based on robust criteria after discussion with key stakeholders, including bus companies and Police Scotland. Extensive consultation of the communities in Edinburgh found 60% of respondents backed the plans. Main access routes in and out of the city will remain as they are with 30 or 40mph limits [– these arterial routes would be the equivalent of the Ormeau Road, Newtownards Road or Antrim Road in Belfast.]

3. Good Practice Guide

Transport Scotland published in January this year a **Good Practice Guide on 20mph Speed Restrictions**. Similar guidance might be considered for Northern Ireland.

4. Enforcement

Enforcement of 20mph restriction is a significant issue. A senior police officer in Edinburgh indicated that the limited resources available to do this would be focused on 20mph zones around schools and any particular accident black spots.

5. Congestion and air quality

Concern is expressed that slower speeds will increase congestion. There is no evidence of this in fact, research indicates that vehicles flow more smoothly through junctions at slower speeds. As a result of reduced acceleration and braking, 20mph may actually help to reduce fuel consumption and associated emissions. When 30km/h (18.6 mph) zones were introduced in Germany, car drivers changed gear 12% less often, braked 14% less often and required 12% less fuel. [ref: An illustrated guide to traffic calming, by Dr Carmen Hass-Klau (1990)] We know that safety is an issue in getting people active so 20mph is expected to unlock the potential for walking or cycling short distances instead of driving and deliver an environmental benefit for all.

6. Funding

The cost considerations for road signage should be weighed up against the many benefits of 20mph, particularly in relation to boosting walking and cycling and the related health and environmental benefits, as well as reduction in road casualties. A number of reports have concluded that 20mph streets have 40% fewer road casualties with the greatest reduction in numbers of young children killed and injured. Default 20mph limits are also cheaper to implement and can reduce the need to spend on significant new infrastructure/signage.^{vii}

7. 20 mph is good for business

We would suggest businesses have nothing to fear from 20mph, indeed much to gain from a measure which, along with other initiatives, will only encourage more people into urban areas to spend more time and money. Inviting, high quality urban environments attract business and increase dwell time. Walkable street locations have been proven to increase shop footfall by 20-40%. In Bristol, area-wide 20mph pilots saw increases of 12% in walking and cycling and 35% of people felt safer.

8. 20 mph is good for people

The benefits of 20 mph reach far beyond road safety, to increased social interaction, physical activity and improved air quality and noise levels. **Sustrans research has shown parents are far more concerned about road safety than stranger danger for their children and speeding traffic is the most common concern in our communities.**^{viii} This is a really popular measure which has been welcomed in many cities across the UK and Ireland including inner city London, Birmingham, Liverpool, Manchester and 30km/h in areas of Dublin.

Opinion poll research carried out in the South Edinburgh 20mph pilot area found that residents felt the new speed limit had had a range of positive impacts, the most often mentioned being improved safety for children, for walking and for cycling.

9. Recommendation

We would encourage the Department for Regional Development Committee to support an amended Bill creating default 20mph in residential streets which would only be implemented after a comprehensive consultation process.

Appendix: Implementation of 20mph by Edinburgh City Council

Councillors approved a new speed limit network for Edinburgh at the Transport and Environment Committee on 13 January 2015, after three years of research and public consultation.

Key features of the network are:

- Residential roads, shopping streets as well as the city centre are now included as 20mph roads
- The retention of a coherent and connected network of 30 mph and 40 mph in and around the city.
- Signage was limited to 20mph signs as you enter a 20mph area and signs when you enter a 30 or 40mph road. This model was used in the pilots and is expected to be used in the roll-out of the wider scheme.

Since the late 1990s, Edinburgh Council has implemented many 20mph zones, using physical traffic calming features similar to work across Northern Ireland. These now cover approximately 50 per cent of the city's residential streets. These zones have reduced casualties and are self-enforcing. They are, however, costly to implement and maintain.

Edinburgh launched **a successful pilot of 20mph** in March 2012, with the concluding report published in August 2013.

The 20mph pilot reduced the speed limit from 30 to 20mph on 38km of Edinburgh's streets. A further 34km of streets in the area were already included in 20mph speed limit zones. Speeds were monitored at 28 locations on the streets with newly reduced speed limits and no traffic calming measures. Average speeds fell in the majority of these areas. There were just four locations monitored where mean speeds continued to be in excess of 24mph. Permanent engineering changes are planned to reduce speed on these streets.

A public consultation was then held from 17 June to 17 October 2014 and included:

- A consultation web-page with a detailed map of the proposals.
- An online survey – 2,585 responses were received.
- Five public meetings, six drop-in sessions and two roadshows in shopping centres.
- Meetings and discussions with key stakeholders such as Lothian Buses.

The consultation led to further changes:

- The addition of 3km of streets to the 20mph network.
- The amendment of the proposed speed limit from 20mph to 30mph on approximately 10km of main roads.

The results of the consultation found 60% of respondents approved the proposals, with 36% opposed.

The new network of 20mph streets will be chiefly in residential and shopping areas, complemented by a network of 30 and 40mph roads on key arterial routes in the city suburbs. This will mean that impacts on journey times should be relatively modest. In terms of main roads which are earmarked for a new 20mph limit, a high proportion of collisions happen on these roads. In particular, pedestrian and cyclist casualties tend to be concentrated on shopping streets and on other main roads in the city centre and inner suburbs. These are also the roads that are used by the most people and that have the greatest mix of pedestrians, cyclists and motorised vehicles. A lower speed limit here can help improve safety and also improve the environment for all road users.

Criteria for selecting potential 20mph streets were agreed in outline by Edinburgh Council's Transport and Environment Committee and then fine-tuned by a sub-group of its Transport Forum, including representatives from a range of interested groups. Changes to the proposed map were made based on feedback from individuals, community groups and organisations like Lothian Buses to make sure the balance was right.

The new 20mph limit is being introduced without traffic calming measures. However, if monitoring finds speeds remain significantly above 20mph on certain streets despite signage and public awareness of the limit, Edinburgh City Council will then consider speed reducing measures on the roads concerned. On residential streets this is likely to mean road humps, on main roads other methods would be deployed, for example road markings (e.g. cycle lanes) or central islands which tend to reduce speeds by reducing the apparent width of roads.

The legal speed limits on any roads in Edinburgh are **enforced by Police Scotland** and this will be no different whether the street is 20, 30 or 40mph. Police will direct their resources to particular problem areas, as they do currently, and drivers caught flouting the limit will face warnings or speeding fines. Additional measures such as Vehicle Activated Signs could also be installed in streets where particularly high numbers of contraventions are detected or reported.

The Council plans to begin implementation of 20mph in February 2016 and roll it out over 24 months. This will include an awareness raising and education campaign.

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References:

[ⁱ Police Service of Northern Ireland, 2014 Police Recorded Injury Road Traffic Collision Statistics: 2013 Key Statistics Report](#)

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http://www.nwpho.org.uk/rtcs_nw/reports/RoadtrafficcollisionsandcasualtiesintheNW.pdf

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http://nacto.org/docs/usdg/relationship_between_speed_risk_fatal_injury_pedestrians_and_car_occupants_richards.pdf

iv <http://20splentyforus.org.uk/UsefulReports/TRLREports/trl421SpeedAccidents.pdf>

v

http://ec.europa.eu/transport/wcm/road_safety/erso/knowledge/Content/20_speed/speed_and_accident_risk.htm

vi <http://www.bmj.com/content/339/bmj.b4469>

vii Bristol City Council 2012 Cabinet report and research findings; Haringey Council 2011 Scrutiny review: 20mph speed limit; London Assembly Transport Committee 2009 Braking Point: 20mph speed limits in London; LGiU 2013 Area-wide 20mph neighbourhoods

viii Sustrans Campaign for Safer Streets

http://www.sustrans.org.uk/sites/default/files/file_content_type/campaign_for_safer_streets_policy_briefing_0.pdf