

Executive Summary

Portsmouth City Council (PCC) is the first local authority in England to implement an extensive area-wide 20 mph Speed Limit scheme – that is introducing signed 20 mph limits largely without traffic calming, covering most of its residential roads which previously had a 30 mph speed limit. This is therefore an important scheme which can be compared to more traditional 20 mph Zones, which involve extensive traffic calming.

This document results from an interim evaluation of the impact of the scheme, focusing on early monitored results. It reports on monitored changes in traffic speeds, traffic volume and road casualties, comparing data for 'Before' and 'After' scheme implementation as well as resident perception of impacts through qualitative surveys. The document is intended to provide an early transfer of information to other local highway authorities on the effectiveness of implementing speed limits through use of signs alone and without providing any accompanying traffic calming measures.

The implementation of the 20 mph Speed Limit scheme was carried out using a combination of post-mounted terminal and repeater signs. 20 mph speed limit roundel road markings were also provided at street entry points on the carriageway adjacent to the terminal post-mounted signs. In some cases of limited visibility, they were also provided adjacent to the repeater signs.

For ease of installation the city was divided into six sectors: Central East, Central West, South East, South West, North East and North West. This amounted to 94% of road length (410 km of the 438 km of road length) in PCC.

On most of the roads where the speed limit signs and road markings were installed, the average speeds before installation were less than or equal to 24 mph. The relatively low speeds before the scheme implementation were because of narrow carriageways and on-street parking, which further reduces effective width of the carriageways. 20 mph signs were also provided on roads with average speeds greater than 24 mph in order to avoid inconsistencies in the signed speed limits in Portsmouth. One of the aims of the scheme was to be self-enforcing (avoid the need of extra Police enforcement) and partly to support the low driving speeds, and encourage less aggressive driving behaviour.

Overall there was an increase in the number of sites that demonstrated speeds of 20 mph or less after the implementation of the scheme. Many sites already had low average speeds of 20 mph or less before the scheme was implemented. At the sites monitored with higher average speeds before the scheme was introduced, there were significant reductions in average speeds. For example for the group of sites monitored with average speeds of 24 mph or more before the scheme was introduced, the average speed reduction was 6.3 mph. The average reduction in mean speeds on all roads was 1.3 mph.

There is insufficient data to comment about the effects of the scheme on traffic routes and volumes. The expectation is that because most roads had fairly slow average speeds before the scheme was implemented, that the changes are likely to have been modest.

Comparing the 3 years before the scheme was implemented and the 2 years afterwards, the number of recorded road casualties has fallen by 22% from 183 per year to 142 per year. During that period casualty numbers fell nationally – by about 14% in comparable areas.

There are no large apparent disparities between the casualty changes for different groups of road users (for example pedestrians compared to motorists) or between crashes with different causes. The number of deaths and serious injuries rose from 19 to 20 per year. Because the total numbers of deaths and serious injuries and of casualties by road user type and cause are relatively low, few inferences about the scheme's impacts should be drawn from these figures.

Qualitative surveys indicate that the scheme was generally supported by residents, although most of the respondents would like to see more enforcement of the 20 mph speed limits. The survey suggests that the introduction of the scheme has made little difference to the majority of respondents in the amount they travelled by their chosen mode. Levels of car travel stayed similar, whilst the level of pedestrian travel, pedal cyclist travel and public transport usage had increased for a small number of respondents.

In conclusion, early figures suggest that the implementation of the 20 mph Speed Limit scheme has been associated with reductions in road casualty numbers. The scheme has reduced average speeds and been well-supported during its first two years of operation.

20mph Limits Professional Update: September 2010

20mph Limits – an inexpensive and popular way to improve safety, cut pollution and lock in smarter choices

20's Plenty



Where People Live

More than 2.5 million people now live in areas such as Portsmouth, Oxford, Leicester, Newcastle, Islington, Hackney, Bristol, Warrington, Colchester, Wirral and Southwark already committed to Total 20mph.

20mph is safer. Other reasons why 20mph limits should be introduced includes:

Limits Cost 50 Times Less Than Home Zones- DfT Guidelines (1/06) relaxed the requirements for 20mph limits in residential areas. It is no longer mandatory to impose physical measures such as bumps. Limits cost £333 per street in Portsmouth.

Enforceable - 20mph speed limits are very much community led and establishment endorsed. Strong support from communities increasing police focus on community policing supports 20mph limits which can be enforced with a "light touch"

Popular - 72% of drivers support 20mph speed limits on residential streets. (British Social Attitudes Survey 2005)

Pollution, Climate Change and Air Quality When 30km/h (18.5mph) zones were introduced in Germany, car drivers on average changed gear 12% less often, braked 14% less often and required 12% less fuel.

Economic Impact - Lowering urban and residential limits to 20 mph (excluding arterial roads) increases car journey time by a maximum of just 40 seconds. At 20mph the gap between vehicles decreases, leading to improved flow.

Health Improvements - Increased likelihood of a shift to modes like walking and cycling, reduced local emissions and improved air quality

Quality of Life and Inequalities – Slower speeds benefit large numbers of non-users, reducing noise and allowing better urban design standards for quality places. Those suffering greatest inequalities tend to live nearer to busy roads and therefore benefit

Feedback

We welcome your response on this briefing. We provide more information on our site www.20splentyforus.org.uk and can recommend experts on technical issues.

20's Plenty For Us campaigns for a 20mph default speed limit in residential streets without physical calming.

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20 mph evidence – UK and abroad



20s Plenty for Godalming

20 mph in the UK

- Setting Local Speed Limits – Circular 01/2006 (revised December 2009):

...introduce 20 mph limits and zones into streets which are primarily residential in nature and town or city streets where pedestrian and cyclist movements are high...

- Reiterated in Manual for Streets 2

Portsmouth – 20 mph city

- 20 mph limits now cover 94% of the city
- Average speed reductions of 1.3 mph on all roads
- Speed reductions of 6.3 mph on higher speed streets (25-29 mph before)
- Casualty reduction of 22%
- Strong support amongst residents

<http://www.dft.gov.uk/pgr/roadsafety/speedmanagement/20mphPortsmouth/>

Netherlands

- 30 km/h zones were first permitted in the Netherlands in 1983. Used in areas with up to a maximum of 5,000 vehicles.
- However, the area-wide approach recommended by CTC is not used.
- Recently greater flexibility has been granted on making a zone, with fewer traffic calming features required.
- Average casualty reduction of 25%

Year	% of streets covered by 30 km/h
1983	0% (legislation enacted)
1997	15%
2002	50%
2007	75%

