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Hertfordshire Highways,
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For the attention of Terry Curtis

Objection to the St Albans 20mph Speed Limit Order

In accordance with the Public Notice in the Herts Advertiser on 10 Nov 2011, I raise Objections to the Hertfordshire (Various Roads, St Albans) 20mph Speed Limit Order 2011 on the following grounds:

1. The Notice claims that the Order will "improve road safety" but the evidence from other schemes (eg Portsmouth, Cambridge), and any assessment of road user behaviours in existing 20mph areas, points to it being detrimental to road safety in terms of an increase in casualties (especially among vulnerable road users such as cyclists and pedestrians).
2. Hertfordshire Highways have cited very old reports in support of the safety of this proposal and have blatantly ignored more recent evidence/data.
3. Public consultation has been based on false/misleading claims, biased questions, and misrepresentation of results. It was a cynical and meaningless exercise.
4. The scheme as proposed and promoted would be **in breach of the Health and Safety at Work etc Act 1974**, as it will knowingly be more likely to reduce road safety and increase casualties.

I will expand on each of these areas.

1. Improve Road Safety?

The Order claims "to improve road safety". This is a misleading and disingenuous claim because, firstly, it will not improve road safety (in terms of the only measurement that counts – reduced casualties), and secondly, because I have been repeatedly told by Hertfordshire Highways that the scheme "is not being considered to improve the accident record of the site". It may not be expected to improve the accident record but it must not make it worse.

I first raised the question of road safety at the public meeting on 20 May 2010, which was organised by "20's Plenty" and supported by Rupert Thacker and others. It was clear at that meeting that most people assumed that 20mph would automatically lead to fewer casualties. It was equally clear that Mr Thacker was aware of results from other schemes (notably Portsmouth) where cyclist and pedestrian casualties had increased. After some prompting, Mr Thacker admitted that there were mixed safety results from various 20mph schemes across the country and that he was being selective about which results he would take notice of (in other words, he was cherry picking).

I attended the St Albans Council Highways Joint Member Panel on 28 July 2011 where, at the end, I challenged Mr Thacker on the safety issue. His response was that safety need not be considered for the proposed scheme, because accident/casualty levels were already low.

Mr Thacker's report to the Panel made no mention of the potential effect on road safety. It is an oft-made assumption that casualties and collisions will reduce following a reduced speed limit but this is not borne out by any evidence. The Portsmouth reports, when allowance is made for the reduction in traffic volume in the monitored area, showed increased accidents and casualties when compared to the national trend, especially among vulnerable road-users such as cyclists and pedestrians.

Mr Thacker's report also hints at the complex relation between perceptions and risk - there is ample evidence that people take less care when they perceive lower risk and the result, in the case of 20mph zones, means that there is likely to be a net increase in casualties (especially when, as they found in Cambridge, the vehicles are actually going faster).

From August to the end of October, I exchanged various emails with Mr Thacker on this subject.

On 2 Sep 2011, Mr Thacker acknowledged (2 Sept) that “there are many sources of data relating to 20mph speed limits from a variety of sources”. I had presented data based on analysis of more recent reports (such as Portsmouth), supported by observations and an understanding of road user behaviour, showing why 20mph zones are detrimental to road safety, particularly for pedestrians and cyclists. He found no fault in my analysis.

The following is a summary of what I believe are the likely effects of the 20mph limits:-

Positive benefit of lower speeds:]

- Lower speed means more time to stop thus preventing accidents and reducing seriousness of injuries.

Negative undesirable effects of lower speeds:

- Human brains tuned to pay attention to fast moving objects in peripheral vision, so slower vehicles are less likely to be noticed, therefore **increasing accidents**.
- Slower vehicles make less noise so less likely to be noticed, therefore **increasing accidents**.
- Speeds lower than "naturally safe" induce lower concentration levels by drivers therefore **increasing accidents**.
- Driver attention diverted to checking speed limit signs and speedometer therefore **increasing accidents**.
- Driver priorities shifted from being safe to the belief that legal is safe therefore **increasing accidents**.
- Roads "feeling safe" lead to less attention by pedestrians, therefore **increasing accidents**.
- Lower speeds mean journeys take longer to complete so increase chance of tiredness or falling asleep accidents (perhaps not so applicable to small 20mph areas, but a general argument against forcing speeds down below the 85%ile speed).

As it stands, it is wishful thinking that the single positive can outweigh the listed negatives. And any other “benefits” would have to be astronomical to argue that they are worth paying the price of reducing road safety.

Unless you can present a case that shows I have got this wrong, you are on course to implement a scheme that will knowingly increase injuries to vulnerable road users (and could contribute to fatalities).

I have presented evidence and argument that casualties among vulnerable road-users will increase. I note that the survey questions ask how safe respondents ***feel*** when walking, cycling, etc. This is central to my argument - one effect of 20mph zone is that they will ***feel*** safer and will take less care, with the result of more casualties. St Peter's Street already shows this in practice – many pedestrians stroll into the road without looking and treat pelican crossings as if they are permanently green for them.

In summary, I have presented a clear argument that casualties among pedestrians and cyclists will increase and Hertfordshire Highways have not a scrap of counter evidence. **You cannot afford to ignore these issues (you will be knowingly putting lives at risk, as I explained previously). If you cannot state, with rationale, why you do not expect casualties to increase, you must not proceed with this scheme.**

Robert Bolt recently forwarded to me a reply from Alex Ben-Eghan claiming

“The aim of the 20mph zones is to create an environment where both vehicles and other vulnerable road users can be safely accommodated. Influencing vehicle speeds through the 20mph zones ensures a safer interaction between vulnerable road users and vehicular traffic, which positively impacts on speed related collisions”.

This is misleading and dangerous nonsense for several reasons. It uses vague phrases such as “safely accommodated”, “safer interaction” and “speed related collisions”, which suggest improvements when, in fact, no safety improvement is likely (for reasons explained above).

In my world, all collisions are speed related, since no speed means stationary vehicles. But, I suspect that this is a deliberately misleading statement by Mr Ben-Eghan which acknowledges that there are classes of collision that will be negatively impacted. What is then required is a reasoned argument that the net effect is positive. Where is that argument?

2. Old Reports

On 30 Sep 2011, after yet more prompting, Mr Thacker claimed to be basing his [safety] case on DfT TAL 9/99 and TRL215, reports which date from the 1990s. Safety claims needs to be based on all available information, especially the most recent data. If we rely only on reports from the 1990s, we would assume that Concorde was safe to fly, etc. Those reports from the 1990s have no place in this work when more recent reports, and common sense, contradict them.

In any case, TRL215 is weak on traffic volume and it attributes success to 20mph zones even when credit is due to the area being by-passed (and then draws an invalid causal link between speed reductions and accident reductions). It does not consider long term trends, selection bias, etc.

DfT TAL 9/99 relies heavily on the flawed TRL 215, and also acknowledges that "full results of the study will not be available for some years".

Those reports obviously do not reflect the results observed in the 21st century and, in any case, were inconclusive in their findings.

The evidence from Portsmouth and Cambridge suggests that the unintended consequences are contributing to the increases in casualties among vulnerable road users (who are less careful because they feel safer).

Portsmouth ...

<http://www.telegraph.co.uk/news/uknews/road-and-rail-transport/8038821/20mph-limit-has-not-made-roads-safer.html>

And the following is an extract from Minutes of the Cambridge West/Central Area Committee meeting on 21 June 2011 (emphasis is mine):

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The committee received a report from the Head of Road Safety and Parking seeking comments on the 20 mph speed limit in the City Centre area.

Members raised the following points:

- Low-level signage has limited the impact of the new speed limit.
- Painting the speed limit directly on to the road surface might help.
- The statistics showing average speeds are not helpful as crawling traffic at peak times reduces overall speed averages.
- Seasonal trends and weather conditions also impact on the statistics.
- Members were disappointed that the limits appeared to have had no impact.
- There was a need to raise public awareness.
- Police attitudes were changing and increased enforcement would help.
- Members requested more information on the numbers of observations.

Councillor Rosenstiel suggested that Maid's Causeway was a cause for concern as the wide road invited speeding. He suggested that village style flashing speed warnings would be helpful.

Council Bick (Executive Councillor for Community Development and Health) that is was too soon to see this project as a failure. It might take several years for the benefits to be realised. Other options, such as traffic calming, would not be possible due to budget restraints.

"disappointed"? "failure"? "several years for the benefits to be realised"??

That last clause is an object lesson in wishful thinking. While at the shallowest level the argument goes that slower equals safer, I have explained and reasoned that there is so much more to road safety than the speed of the vehicles (or, rather, the speed limit signs)

3. Public Consultation

The public consultation exercise has been a sham, based on misleading information and meaningless and biased questions. The results from it cannot be used to support the 20mph scheme as proposed – the results must be discounted.

To give some examples:

The covering letter (signed by Alex Ben-Eghan), dated 13 May 2011, opens with the statement...

*"The benefits of low vehicle speeds of about 20mph in urban areas, where there is much pedestrian activity, manoeuvring traffic and other hazards, **are well documented.**"*

That is absolutely not true, as admitted by Rupert Thacker. If the letter were to present an honest assessment, it would have added that the well documented DISADVANTAGE of imposing a 20mph speed limit is that **more cyclists and pedestrians will get hurt.**

The Questionnaire then proceeded to ask subjective questions about what residents **feel**. The clear slant of this approach is that you expect (and encourage) respondents to say that they do not "feel safe" and hence you claim support for the scheme, even though their feelings may be nothing to do with their perceptions of traffic speed (they could feel unsafe because of narrow/uneven footpaths, or thugs on the streets). And yet what is clear from the results from other 20mph schemes is that casualties among cyclists and pedestrians increase, and it is obvious why.

Driving involves positioning a vehicle relative to the road layout and other road users, proceeding at an appropriate speed, in the appropriate gear, and monitoring and adjusting those using the steering wheel, pedals and other controls, in response to hazards. It also involves observing, and signalling intent to other road users. Good drivers develop the ability to do all of these instinctively and even poor drivers manage to do most of them fairly well most of the time. Speed management, including 20mph speed limits, focuses a disproportionate amount of attention on just one aspect of driving – speed – inevitably reducing the time and attention available for the others. When most collisions involve drink/drugs, tiredness, misjudgement, poor observation or a lack of concentration, it is inevitable that such interventions will increase risk to all road users and contribute to more accidents than they could ever prevent. **Combine that with pedestrians and cyclists who "feel safer", and therefore take less care, and the result is bound to be detrimental to road safety.**

Road safety is a complex subject, and the law of unintended consequences applies.

It cannot be the case that an empty promise of "improved quality of life" (based on no more than wishful thinking) is deemed more important than life and limb of vulnerable road-users. I'm sure if the survey questions were couched in those terms, the locals would not be as supportive as they appear to be.

Measuring success by public opinion is fraught with difficulty. For example, if the scheme were to be implemented, and if a repeated questionnaire yielded more people feeling safer (even though casualties had actually increased) would you consider the scheme a success?

Then the final question of the survey takes bias, and leading questions, to new heights.

"Traffic speeds within most of the study area are low. The implementation of a 20mph zone together with measures to slow traffic in those locations where speeds are too high would produce a worthwhile improvement in the quality of life for residents. Do you agree with the proposals, are they worthwhile?"

Without any mention of the cost of the scheme, this question **tells the public** that the improvement is worthwhile, and then asks them if the proposals are worthwhile. Such a question should never have been formulated and its inclusion alone totally invalidates the survey – especially as, **despite the odds, over 27% disagreed with that question.**

I expect Councillors to adopt political stances but Hertfordshire Highways must offer professional advice based on all of the evidence available, particularly in the area of Road Safety. That has not been done.

4. Breach of Health and Safety at Work etc Act

Given the above, it is clear that if this scheme were to proceed **you will be knowingly increasing risk to the general public.**

To continue with this trial/scheme is a clear breach of your Duty of Care as defined in the Health and Safety at Work etc Act 1974, specifically Section 3 (1) which states that:

It shall be the duty of every employer to conduct his undertaking in such a way as to ensure, so far as is reasonably practicable, that persons not in his employment who may be affected thereby are not thereby exposed to risks to their health or safety.

SUMMARY

This scheme has been driven by dogma and a blatant and culpable disregard for the effects it will have on casualties among vulnerable road users.

In the world of safety, it is necessary to consider, and be able to accommodate, all available data, and all reasonable and reasoned challenges must be fully addressed. I do it every day in my safety engineering role - not to do so is negligent and unprofessional.

My main argument is based on observation and logical thinking, supported by analysis of the total body of evidence (not just the cherry pickings) from other trials and schemes.

For any scheme, it is important that road safety is not reduced - i.e. no increase in casualties/collisions. I have presented a clear argument that casualties among pedestrians and cyclists will increase and you appear to have no counter evidence.

Public opinion has been sought through the use of grossly biased and loaded questions, and must be discounted. The responses actually suggest that the trial would not gain public support if surveyed using unbiased questions.

You have a Statutory Duty of Care to comply with the Health and Safety at Work etc Act. The scheme as proposed would be in breach of it.

This scheme is built on wishful thinking about quality of life – that is no argument for a scheme that will damage road safety.

Eric Bridgstock
Independent Road Safety Research