

Report for Resolution

Report to Norwich Highways Agency Committee
27 May 2010

Item

6

Report of Head of Transportation and Landscape

Subject Speed Management in Norwich

Purpose

To consider and set guidelines for a revised policy on speed management in Norwich

Recommendations

Members are recommended to:

- (1) consider the three options for addressing speed management in residential areas in Norwich as detailed in the report and decide which of those 3 options to adopt;
- (2) if members agreed to a citywide or limited rollout of 20mph limits, ask the Head of Transportation to report back to this committee with a programme for implementing those limits, and in due course, a report on a strategy for speed management for the A, B and C class road network;
- (3) if members decide to look at speed management holistically on the road network, ask the Head of Transportation to report to a future meeting with a strategy for speed management on all classes of road in Norwich.

Financial Consequences

The financial consequences of this report will depend on the option chosen by Members. A city-wide 20mph signed only speed limit on all U class roads would cost around £550,000 with the need for extra funds to consider other roads in Norwich. Whichever option is decided, funds will need to be taken from future Local Transport Plan budgets.

Strategic Priority and Outcome/Service Priorities

The report helps to meet the strategic priority "Safe and healthy neighbourhoods – working in partnership with residents to create neighbourhoods where people feel secure, where the streets are clean and well maintained, where there is good quality housing and local amenities and where there are active local communities" and the service plan priority of delivering the LTP programme.

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Background Documents

None

Report

Background

1. In April 2009 three pilot areas of 20mph limit were introduced. These limits were monitored and a report to this committee in September 2009 advised Members of the outcome.
2. At the September NHAC meeting it was resolved to:-
 - * “note the key messages from the 20mph trial project - - ,
 - * await further advice from the Department for Transport (DfT) on the use of 20mph speed limits in residential areas - - ,
 - * request the Head of Transport to report back with a recommendation for speed management both in residential areas and on the A, B and C class network”.
3. The DfT have not yet finalised their guidance on the use of 20mph limits. However, as Members are keen to consider speed management policy, this report reviews the pilot 20mph limits and gives options for the way forward.

Department of Transport publications

4. In December 2009 the DfT requested comments on a revision of DfT’s speed limit circular. The consultation from the DfT made the following proposals;
 - * We want to encourage highway authorities to introduce, over time, 20mph zones or limits into streets which are primarily residential in nature and into town or city streets where pedestrian and cyclist movements are high, such as around schools, shops, markets, playgrounds and other areas, where these are not part of a major through route.
 - * We want to make it clearer that highways authorities have flexibility in the use of 20mph zones and limits, and should apply the option best suited to the local circumstances and that brings most benefits in terms of casualty reductions and wider community benefits.
 - * We want to draw attention to the initial evidence from the trial of wide area signed-only 20mph speed limits in Portsmouth, and want to make it clear that 20mph limits over a number of roads may be appropriate elsewhere.
 - * We are setting out that we will consider the requirements for calming measures in 20mph zones as part of the DfT’s Traffic Signs Policy Review, which was announced in September 2008. In exceptional cases, the Department could also look at giving special authorisation for the use of 20mph repeater signs, including with accompanying painted roundels, instead of calming measures, on individual streets with low average speeds within a 20mph zone. Decisions will be made on a case by case basis.
 - * In addition to better road safety outcomes we will also look to contribute to

the DfT's other goals, including for the economy, emissions, equality of opportunity and quality of life.

5. The consultation letter and full details of the initial proposed changes is attached as appendix 1.
6. This second stage of consultation gives the impression that the DfT is in favour of the use of 20 mph speed limits and zones in residential areas and where pedestrian and cyclist movements are high. However, there is also the consideration that a road used as a through route may not be suitable for this treatment.

Portsmouth Scheme

7. Portsmouth City Council installed an area wide scheme of signed only 20mph speed limits. This was the first in the country and the DfT has been interested in the effects this has had on safety in these areas. The DfT commissioned a report "Interim evaluation of the implementation of 20mph speed limits in Portsmouth" (attached as appendix 2). This document evaluates the scheme to date and concludes:
 - The average speed reduction achieved with speed limit signs alone is less than that achieved by 20mph zones
 - Within an area-wide application of 20mph sign only limits, those roads with average speeds higher than 24mph generally benefit from significant speed reductions, but not to the extent that the 20mph speed limit is self enforcing,
 - Based on the available data for one year after scheme implementation, casualty benefits greater than the national trend have not demonstrated but nonetheless may be demonstrated when more data is available.

The three pilot 20mph speed limits in Norwich

8. Since the three pilot schemes (Borrowdale Drive, Marl Pit Lane and Newmarket Street/Vauxhall Street areas) have been in operation, other than the consultation that was discussed at the September 09 meeting, we have received few comments from the public. This gives the impression that the public are generally happy with the existing 20mph limits. However, it should be remembered that the consultation carried out in the summer of 2009 and reported to this committee in September concluded that the majority of respondents welcomed the new 20mph limits but a majority of them also thought the limits were ineffective.
9. A measurable way of determining road safety is to monitor the number of reported personal injury accidents occurring in the area. Since April 20th 2009 (the introduction of the 20mph limits), there has been one personal injury accident recorded in the three areas. This accident involved a cyclist and car and was in the Newmarket Street area. The accident data available runs to the end of February 2010. This only gives 10 clear months of records, which is not statistically significant.

10. A ten month period of monitoring accident data is insufficient to arrive at any clear evaluation. However, the evidence emerging from the Portsmouth trials along with the research carried out by the DfT, does appear to be consistent with our initial findings on traffic speed reductions. This is that 20mph speed limits have little effect on traffic speeds where traffic is already travelling around 20mph, but has a larger effect on speeds in areas where traffic is travelling nearer to 30mph, but does not bring it down to 20mph.

Accident records for Norwich

11. In the last three years there have been 1,099 personal injury accidents recorded in Norwich, 975 of these resulted in slight injury, 118 involving serious injuries and 6 causing death. Plan No. PL/TR/3700/167, attached as appendix 3 shows the locations of all accidents in the last three years. To enable the plan to be included in this report, a small scale has been used which although it gives an overall impression of the distribution of accidents, it does not allow accurate evaluation. For this reason there will be a larger scale plan of this data on display at committee.

12. From this plan it can be seen that many more accidents occur on the network of class A, B and C roads than on the residential U class roads. The table below gives the percentage of accidents occurring on the different class of road. Notably, 17.2%% of accidents occurred on class U roads which account for 74.2% of the total road network in Norwich. In contrast, 82.8% of the accidents occurred on the class A, B and C roads.

All personal injury accidents in Norwich in three years to February 28 th 2010					
Road Class	Number of accidents	Percentage of accidents	Total road length in Norwich	Percentage of road network	Rate of accidents per km.
U	191	17.2%	285,210m	74.2%	0.67
A	543	48.9%	48,056m	12.5%	11.30
B	53	4.8%	6,751m	1.8%	7.85
C	324	29.1%	44,034m	11.5%	7.36
Total	1,111		384,051m		Overall 2.89

13. The distribution of the different levels of severity of accidents is also notable. Five out of six fatal accidents occurred on A class roads (1 being on a U class road). A large majority of accidents in the U class roads have only slight personal injury (173 accidents gives a percentage of 90.6%) and 17 (8.9%) had serious injuries.

14. When considering public perception of safety and encouraging people of all

ages to walk or cycle, it is useful to consider accidents where pedestrians or cyclists have been involved. Plan No. PL/TR/3700/168, attached as appendix 4 shows the locations of the accidents involving pedestrian or cyclists in the last three years. As before, to enable more detail to be seen, a larger scale plan of this will be on display at committee.

15. This plan shows similar distribution of accidents. The table below gives the percentage of accidents occurring on the different class of road. Notably, 21.1% of accidents occurred on class U roads, which account for 74.2% of the total road network in Norwich. Whereas 78.9%, a large majority of the accidents, occurred on the class A, B and C roads.

Personal injury accidents in Norwich involving pedestrians and cyclists in three years to February 28 th 2010.					
Road Class	Number of accidents	Percentage of accidents	Total road length in Norwich	Percentage of road network	Rate of accidents per km.
U	99	21.1%	285,210m	74.2%	0.35
A	194	41.4%	48,056m	12.5%	4.04
B	29	6.2%	6,751	1.8%	4.83
C	147	31.3%	44,034	11.5%	3.34
Total	469		384,051		

16. When considering the accidents on U roads it is notable that the U class roads that serve as a 'cut through' between the main roads generally have more accidents than the smaller U roads that only serve the localised area. Examples of these are Eaton Road, Larkman Lane and Hellesdon Road..

17. However, it should also be recognised that three of the residential areas with a higher number of accidents on U roads are in areas that have already been traffic calmed and are subject to a 20mph limit, although the accident rate is lower than prior to action being taken. These areas are Wilberforce Road, North Earlham and the zone around The Avenues.

18. All the accident information above must be considered along with the knowledge that the volume of vehicles travelling on the class A, B and C roads is considerably higher than on the U roads. The speed limits on these roads are 30 or 40mph whereas all U roads are either 30mph or in some areas 20mph

Considerations for speed management

19. The main reason for introducing speed management should be to reduce speeds and reduce the dominance of motor vehicles in an area, to improve safety, or at least the perception of safety, and to encourage people to walk or

cycle. Road safety for all road users could be improved and this is measurable by the number of personal injury accidents recorded. The issue of streetscape should also be considered. A city-wide scheme would involve the erection of approximately 3,500 signs with associated posts where necessary. This would add to street clutter.

20. A large proportion of travel is taken between home and school or home and work. In the majority of these journeys the person needs to cross or travel on Class A, B or C roads as well as unclassified residential roads. To provide a safer environment throughout the journey, main roads should also be considered for speed management, with particular regard to improving the safety of crossing points.
21. Speed management on the whole road network would give benefits to the whole of Norwich and would assist in addressing all road accidents, instead of just the 29% on class U roads

The way forward

22. Members are requested to consider the options below for speed management:-

Option 1 – Rollout 20mph speed limits to all unclassified residential roads in Norwich

23. This option would be relatively simple to administrate and would give a uniform approach to residential areas. However this may not be the best solution for the U class roads that serve as a cut through between main roads. In the areas where traffic is already travelling at around 20mph, there would be little difference in speeds whereas in areas where traffic is generally travelling nearer to 30 mph, a 20mph limit would not be self enforcing. The estimated cost of this option is £550,000.
24. This option would also not address problems on Class A, B and C roads where the majority of accidents occur. A further report to a later NHAC will be necessary to consider these roads, however, if this approach is adopted it is unlikely that there would be funds available for the A, B & C roads until 2013/14.

Option 2 – Introduce 20mph speed limits in areas where the current DfT criteria for introduction exists

25. This option would provide signed only 20mph speed limits on areas of U class roads where the existing traffic is already travelling up to an average of 24mph. The areas likely to be covered are shown on plan PL/TR/3700/169 attached as appendix 5. However, this would not address speed management on many of the residential streets or class A, B and C roads. Again, a further report would be necessary to consider these roads and it is likely that funding would not be available until 2012/13

Option 3 – Request the Head of Transportation returns to a later meeting with recommendation on a revised policy for speed management on all classes of road in Norwich.

26. This option would allow a comprehensive study of speed management for the whole of the City. Judgement can be made on various ways of managing speed on the different types of road class along with traffic volumes, modes of transport and local environment. There will be residential roads that are suitable for 20mph limits and possibly some 20mph zones with minimal traffic calming measures. On class A, B and C roads the speed management strategy would possibly include traffic management such as signs and road markings with an emphasis on provision for pedestrians and cyclists.
27. An integrated approach such as this would allow resources to be targeted to areas with the most need. It could be linked with initiatives to promote speed awareness. There would also be opportunities to use other funding streams to achieve speed management objectives (e.g., Safer and Healthier Journey to School schemes).

Financial considerations for the various options

28. It is estimated that if 20mph limits (signed only) were adopted in all unclassified residential roads in Norwich, the cost to install the scheme would be around £550,000. The ongoing maintenance of the estimated 3,500 signs necessary, including replacement, re-fixtures and cleaning would also add a great strain on the existing maintenance budget. At present, the annual maintenance budget for non illuminated signs in Norwich is £32,000. This budget would need to increase.
29. If option 2 is adopted the scheme would cost in the region of £200,000. The installation of the estimated 800 signs necessary would also increase the demand on the existing maintenance budget, with possibly a need for extra funds.
30. If option 3 were adopted, the strategy and programme could be targeted to address road safety throughout the whole LTP programme. In this way resources could be accessed from other sections of the transportation budget. Whilst it is likely to be more costly than either option 1 or 2, neither option 1 or 2 address A, B or C class roads and by taking a prioritised approach this would ensure expenditure was linked to likely benefits.
31. Given these costs, value for money must be considered. If the city-wide scheme of installing 20mph signed only limits is proposed, over £550,000 could be spent on a scheme with little tangible benefit other than public satisfaction. To give members some context a zebra crossing costs £40,000, a pedestrian refuge £20,000, a signalled crossing £100,000.

32. At present the total budget for traffic management is £230,000. Therefore if it is decided to embark on a 20mph limit throughout Norwich, it would take three years to finance and during this time no other traffic management issues could be addressed. In the future budgets may be allocated differently to the present; however given the current squeeze on public finance there is little prospect of budgets increasing, and a strong probability that they will be cut, which could further lengthen the time taken to introduce the scheme..

Conclusion

33. Members are requested to consider the above options and discuss the various benefits to Norwich. Particular consideration should be given to the value for money of the 20mph speed limits, either on a limited or city wide rollout.

34. There is little evidence to suggest that the 20mph limits in themselves offer value for money across the city and if walking and cycling is to be encouraged the provision of better cycle routes and crossing points are more likely to achieve modal shift. The provision of such measures almost always results in the reduction of vehicle speeds in an area. A speed management approach based on this premise, i.e. option 3, is likely to offer the best value for money and would benefit the whole road network.

References

Reports to the Norwich Highways Agency Committee as follows:-

- NHAC report 24th September 2009 – 20 mph limits in Norwich
- NHAC report 22nd January 2009 – 20mph limits in Norwich
- NHAC report 25th September 2008 - The way forward for 20mph limit in Norwich
- NHAC report 22nd May 2008 – Feasibility study for a 20mph limit for Norwich