

REPORT FOR DECISION

Agenda Item	
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DECISION OF:	CABINET
DATE:	19 SEPTEMBER 2012
SUBJECT:	20mph SPEED LIMITS ON STREETS WITHIN RESIDENTIAL AREAS
REPORT FROM:	Cabinet Member for Neighbourhoods and Regeneration
CONTACT OFFICER:	Ian Lord, Service Manager - Traffic & Asset
TYPE OF DECISION:	CABINET (KEY DECISION)
FREEDOM OF INFORMATION/STATUS:	This paper is within the public domain
SUMMARY:	Promotion of a three-year programme of Environmental Traffic Calming Schemes designed to reduce the legal speed limit to 20mph on streets within selected residential estates and areas located throughout the Borough.
OPTIONS & RECOMMENDED OPTION	<p>It is recommended:</p> <p>(i) that a strategy for the implementation of 20mph zones and speed limits is adopted as described in this report in order to improve road safety in residential areas, and</p> <p>(ii) that the Cabinet Member for Neighbourhoods and Regeneration be authorised to agree details of the strategy including approval for individual schemes identified through the prioritisation process.</p> <p>(iii) that Members approve the inclusion of the scheme in the Capital Programme 2012/13 to 2014/15 to be funded from capital receipts (2012/13).</p>

	<p>Alternative Option:</p> <p>Take no action on this report at this time.</p>
IMPLICATIONS:	
Corporate Aims/Policy Framework:	Do the proposals accord with the Policy Framework? Yes
Statement by the S151 Officer: Financial Implications and Risk Considerations:	The scheme is targeted at reducing the risk of road accidents and associated economic costs. In implementing the schemes there will be risks of not meeting project timescales and costs; these risks will need to be managed by planning and regular monitoring of the consultation and implementation stages of individual projects on the sites identified for speed restriction measures.
Statement by Executive Director of Resources:	<p>Funding for year 1 (£245,000) is from available capital receipts (already secured).</p> <p>Funding for years 2 & 3 (£250,000 & £205,000 respectively) will be taken from earmarked reserves.</p> <p>Should support be available from external sources such as the health sector then the call on reserves will be reduced accordingly.</p> <p>As part of the normal capital programme scheme completion review process regular assessments will be made of the success of the schemes in reducing average speeds and the number of collisions, and delivering the other expected benefits as set out in the report.</p>
Equality/Diversity implications:	No
Considered by Monitoring Officer:	Yes The recommendations are within Government policy for accident reduction in residential areas.
Wards Affected:	All
Scrutiny Interest:	Internal Scrutiny

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TRACKING/PROCESS**DIRECTOR: EDS**

Chief Executive/ Strategic Leadership Team	Cabinet Member/Chair	Ward Members	Partners
05.09.12	23.07.12	All	
Scrutiny Committee	Committee	Council	

1.0 BACKGROUND

- 1.1 The Department for Transport's consultation "A Safer Way" (April 2009) contained proposals for improving road safety beyond 2010. The consultation suggested the amendment of guidance on speed limits, recommending that Highway Authorities might introduce 20mph Zones or Speed Limits into streets that are primarily residential in nature and which are not part of any major through route.
- 1.2 Studies have suggested that for every 1mph average speed reduction in an urban street, a 6% reduction in collision frequency can be achieved (Transport Research Laboratory Report 421, 2000). Reductions in average vehicle speeds therefore have the potential to deliver significant benefits across the transportation, environmental and health agendas.
- 1.3 The Coalition Government's Strategic Framework for Road Safety (May 2011) indicated at para 3.26 that: "It is therefore important to consider the impacts of road safety measures on the economy, the environment and communities. Speed limits can have impacts on each of these. Local authorities are able to use their power to introduce 20mph speed limit zones where (a) major streets where business on foot is more important than slowing down road traffic and (b) lesser residential roads in cities, towns and villages, particularly where this would be reasonable for the road environment, there is community support and streets are being used by pedestrians and cyclists. The evidence suggests that in residential streets, and in town centres where there is likely to be a conflict between vehicles and pedestrians, carefully implemented 20mph zones can contribute to an improvement in road safety."
- 1.4 A recent report by the Greater Manchester Public Health Practice Unit "Policy and Practice: 20mph limits a public health intervention" (November 2011) has looked at the public health benefits arising from widespread introduction of 20mph speed limits. Reducing average speeds should deliver benefits to quality of life, as well as encouraging healthier and more sustainable transport modes such as walking and cycling. This message is further endorsed by the British Medical Association report "Healthy Transport = Healthy Lives" (July 2012) which calls for a strategic approach to transport policy and the urban environment including "reducing congestion and improving usability of roads by pedestrians and cyclists through reallocation of road space, restricting motor vehicle access, road-user charging schemes, and traffic-calming and traffic management (including area-wide 20 miles per hour speed limits)".

2.0 ISSUES

- 2.1 In 1934 a general 30mph speed limit was imposed on all roads in built up areas which remains to this day. The 30mph speed limit is indicated by the presence of street lights and enables this speed limit to be enforced without the need for any signing other than at each point where the speed limit starts.
- 2.2 In 1999 local authorities were given the powers to introduce 20mph speed limits without requiring the consent of the Secretary of State. The Local Authority is required to make a Traffic Regulation Order which schedules accurately the streets (or part lengths of streets) to which a 20mph speed limit applies. Regular repeater signing is required to indicate that a 20mph speed limit is in force unless the speed limit is introduced as part of a 20mph zone.
- 2.3 There are important differences between a 20mph Speed Limit and a 20mph Zone:
- A **20mph Speed Limit** excludes the use of any physical self-enforcing features and instead relies solely on the provision of relatively low-cost signing to encourage reduced traffic speeds. 20mph speed limit schemes cannot rely on Police presence to ensure general observance of the lowered speed limit.
 - A **20mph Zone** must include the construction of physical traffic calming measures (speed humps, chicanes etc.) that effectively make the lowered speed limit self-enforcing. Historically, evidence of numbers of injury collisions at a particular site has been essential to justify intervention using Local Safety Scheme funding to introduce a 20mph Zone. The potential savings in collision-related injuries should be able to justify the initial financial outlay required to install such a scheme and gain acceptance from local residents that any inconvenience they may incur represents a reasonable compromise in order to produce a safer road environment.
- 2.4 Proposals for 20mph Speed Limits or 20mph Zones currently require advertisement both in the press and on site as per the standard procedure for Traffic Regulation Orders. It should be noted that this requirement is presently under review and could result in a relaxation at the Highway Authority's discretion.
- 2.5 The Department for Transport revised their previous guidance regarding 20mph speed limits by the issue of Circular 01/06 - Setting Local Speed Limits. The revised guidance encourages local authorities to consider implementing 20mph speed limits where appropriate. The guidance states that "successful 20mph speed limits should be generally self enforcing" and that. "20mph speed limits are unlikely to be complied with on roads where vehicle speeds are substantially higher and, unless such limits are accompanied by the introduction of traffic calming measures, police forces may find it difficult to routinely enforce the 20mph limit."
- 2.6 The guidance specifically states that 20mph speed limits should be used for individual roads, or for a small number of roads, and that they are only suitable where:
- Vehicle speeds are already low (average 24mph or below); or

- Where additional traffic calming measures are planned as part of a strategy.
- 2.7 In July 2012, the Department for Transport issued for consultation a draft update of the "Setting Local Speed Limits" guidance which recommends that 20mph speed limits should apply "in streets that are primarily residential and in other town or city streets where pedestrian and cyclist movements are high, such as around schools, shops, markets, playgrounds and other areas, where vehicle movement is not the primary function".
 - 2.8 It is recognised that the Police are generally not available to provide enforcement of 20mph speed limits and consequently they are unable to contribute to the achievement of wider compliance with the lower speed limit. The Association of Chief Police Officers (ACPO) stance on enforcement of 20mph speed limits is as follows: "Roads subject to a 20mph limit should achieve compliance by having the look and feel of a 20mph limit. If there is wilful offending despite the correct engineering measures being in place, then enforcement activity will take place. Merely putting up 20 mph signs where the existing average speed is much higher, then we do not believe there will be any significant road safety benefit and routine enforcement activity will not be carried out."
 - 2.9 20mph speed limits on local distributor roads and major bus routes are not recommended. The nature and usage of these routes does not indicate a logical 20mph limit to road users, which leads to confusion and driver frustration, with associated incidents of aggressive overtaking and tailgating. 20mph speed limit trials on distributor roads have resulted in anecdotal evidence of rat-running on alternative routes through adjacent residential streets. Roads within Bury that will be required to retain a 30mph speed limit (or above) will include the whole of the A- and B-road network (with the exception of B6212 Stephen Street/Newbold Street/Harvey Street/Fenton Street, B6216 Millet Street/Tenterden Street, B6218 Market Street (part) and B6219 Wellington Road). A number of key classified unnumbered and unclassified roads will also be expected to retain a 30mph speed limit primarily to ensure that attendance times of the Police and emergency services are not compromised.
 - 2.10 A number of Authorities have carried out trials of 20mph Speed Limits in residential areas with substantial schemes in Portsmouth and Warrington in particular attracting extensive press coverage. The former Economy, Environment and Transport Scrutiny Commission Highways Sub-Group in 2008 identified the issue of reducing speed limits in residential areas across the Borough and looked to analyse a proposal of implementing 20mph restrictions in all residential areas. Members requested that a trial of a 20mph speed limit be carried out on a residential estate in the Borough and this was subsequently implemented in an area centred on Knowles Street, Radcliffe. A second trial was also initiated on Watling Street, Affetside. Both projects were promoted in response to residents' requests for speed reducing measures on streets where intervention would not otherwise be justified.
 - 2.11 Traffic counts have demonstrated that the introduction of 20mph speed limit signing typically results in mean speeds being reduced by 1 to 2mph with some evidence to suggest that these reductions may be eroded in time. A 1mph reduction is therefore a realistic outcome which may produce a 6% reduction in collision frequency on a typical urban street. In comparison the physical measures installed as part of a 20mph zone can result in mean speeds being

reduced by as much as 9 or 10mph with potentially a ten fold greater reduction in collisions.

2.12 The Department for Transport has published the results of investigations into the outcomes of collisions between pedestrians and vehicles travelling at various speeds:

- At 20mph there is about a 1 in 40 (2.5%) chance of being killed or 97% chance of survival;
- At 30mph there is about a 1 in 5 (20%) chance of being killed or 80% chance of survival;
- At 35mph there is a 50/50 chance of being killed; and
- At 40mph there is about a 9 in 10 (90%) chance of being killed or 10% chance of survival.

2.13 It has been estimated that for each 1mph reduction in average speed, accident frequency is reduced by between 2-7%. Whilst 5% is often referred to as a robust general rule, the reduction varies according to the road type and average speed and a reduction of about 6% is typical for urban roads with low average speeds.

2.14 The Department for Transport's published average value of prevention per reported road accident casualty and per reported road accident is as follows:

Accident/casualty type	Cost per casualty (£)	Cost per accident (£)
Fatal	1,585,510	1,790,200
Serious	178,160	205,060
Slight	13,740	21,370
Average for all severities	47,740	68,320
Damage only	-	1,880

2.15 The following table lists all injury casualties reported as a result of collisions on roads within the borough in the last three years (2009-11 inclusive):

	Motorway	A-Road	B-Road	C-Road	Unclassified Road	Total
Fatalities	2	4	2	2	0	10
Serious Injuries	16	67	26	28	23	160
Slight Injuries	219	585	199	182	231	1416
Total Length of Adopted Highway	(25.4km)	55.1km	32.8km	37.6km	535.2km excluding backstreets	686.1km

(Note: This table does not include data from December 2011 as verified data for this month was not available at the time of the study being initiated)

2.16 Analysis of this data demonstrates that 80% of fatalities, 68% of serious injury casualties and 71% of slight injury casualties in Bury occur as a result of collisions on the major road network (Motorways, Class A and Class B roads). Measures to address problems on these roads can often prove expensive to implement and typically require funding using Local Safety Scheme budgets

allocated from Integrated Transport Block Funding through the Greater Manchester Local Transport Plan.

- 2.17 20% of fatalities, 32% of serious injury casualties and 29% of slight injury casualties occur as a result of collisions on Class C and unclassified roads. Further investigations have noted that a substantial number of these casualties have resulted from collisions on roads that would be expected to retain a 30mph speed limit whilst a smaller number of (typically non speed related) collisions have occurred within existing 20mph areas.
- 2.18 The total number of casualties recorded in the last three year period (2009-11 inclusive) on those C-roads and unclassified roads to which a 20 mph speed limit might be applied were: 1 fatality, 25 serious injuries and 216 slight injuries.

3.0 PROPOSALS

- 3.1 This report concerns the promotion of a strategy to address traffic conditions in residential areas by the introduction of schemes designed to reduce the legal speed limit to 20mph. Theoretically, any street which does not form part of the major road network could be considered for inclusion although in practice many minor side-streets and cul-de-sac estates will not gain any benefit as traffic speeds are already less than 20mph. Instead, the greatest benefit is to be gained by considering those estates where the potential for casualty reduction is greatest. Consequently, priority will be given primarily to residential estates containing sensitive properties such as schools etc. and/or with recognised issues with through traffic. 19 schools in the borough are currently located within existing 20mph zones or on streets subject to a 20mph limit. The proposed strategy is expected to increase this number to 58. Town centre areas with substantial pedestrian activity will also be considered as a priority.
- 3.2 Preliminary investigations suggest that schemes likely to be shortlisted for introduction using the prioritisation process described above will address sites where 1 fatality, 18 serious injuries and 114 slight injuries were recorded during the last three year period. Potential casualty savings are estimated to be up to 3 serious injuries and 19 slight injuries per year following implementation of these schemes (equivalent to £796,000 pa).
- 3.3 Whilst there is no direct financial gain to the Council from these schemes, evidence from other studies shows that they are beneficial to society as a whole. With this in mind officers will continue to pursue a multi agency approach to accident prevention and, through the Joint Strategic Needs Assessment (JSNA) process, explore joint commissioning opportunities which will achieve the desired outcomes effectively and efficiently.
- 3.4 The strategy promotes the introduction of 20 mph speed limits or 20mph zones as appropriate. Entry points to these areas will be emphasised to make it clear to the driver that they are entering a different environment and encourage a change in driving behaviour. Where existing mean traffic speeds exceed 25mph then the road environment will have to be altered in order to achieve the required reduction in traffic speeds. This will require lining, surface treatments and physical traffic calming measures (road humps, speed cushions, chicanes etc.) in addition to the required boundary signing for a 20mph zone. Schemes will be designed to address the conditions unique to each area with the more intrusive measures restricted to streets where the greatest reductions in mean

speeds are necessary to make a 20mph speed limit self-enforcing. The Department for Transport have recently relaxed their requirement for regularly spaced features within the boundaries of a 20mph zone which permits the omission of features from minor streets located within the zone providing existing mean speeds on those streets are consistent with a 20mph speed limit. Most residential streets with traffic calming measures already present will be incorporated into larger area-wide 20mph zones.

- 3.5 Research on the effectiveness of 20mph zones has shown that casualties can fall by up to 70%. Consequently, 20mph zones can be more reliably expected to produce casualty savings sufficient to justify their introduction particularly when used to address streets with mean speeds recorded as between 25 and 30+mph.
- 3.6 Proposals for the introduction of 20mph zones or 20mph speed limit schemes will be advertised as appropriate and all residents will be invited to take part in consultations in relation to the schemes promoted in their area. In addition, proposed changes to a speed limit currently require the publication of a formal Notice in the press with a three-week period being allowed for objections to be submitted.
- 3.7 It is proposed that all schemes will be monitored following implementation to assess compliance with the lower speed limit and to identify any changes of circumstance that might justify further intervention. Should residents feel that physical measures are required on any length of street to which a 20mph speed limit has been applied then further intervention will be considered if surveys demonstrate that mean speeds continue to exceed 24mph.
- 3.8 It is recognised that a number of medium to large cul-de-sac estates will not be considered a priority due to a lack of recognised through traffic routes or the presence of school premises. The majority of traffic using these estates will be generated by residents and their visitors and these motorists will be particularly familiar with the road layout. Options for influencing driver habits through the regular deployment of campaign signing designed to encourage lower speeds will be considered as an alternative approach in these areas. This will help to promote the message that speeding in all residential areas is both dangerous and anti-social.
- 3.9 The establishment of a 20mph speed limit on a cul-de-sac street adjoining a 30mph route would provide no benefit to that street if existing mean traffic speeds are already less than 20mph. Whilst it might seem illogical for any such street to retain a legal 30mph speed limit, the signing required to designate a lower limit would only introduce unnecessary visual clutter, restriction on the available footways and an on-going maintenance liability without delivering any road safety benefits. The deployment of campaign signing may well prove to be more appropriate in such cases, particularly where a school is present.
- 3.10 It is proposed that full use should be made of the available media to publicise the strategy and inform residents of the proposals. Options for the inclusion of other road safety partners, Township Forums and residents' groups are to be explored in order to help develop individual schemes and promote community ownership. It is also intended to develop a high-level publicity campaign for the strategy to ensure that it is brought fully into public consciousness, including those not directly affected by specific scheme proposals.

4.0 CONCLUSION

- 4.1 The promotion of a strategy to address traffic conditions in residential areas by the introduction of schemes designed to reduce the legal speed limit to 20mph has considerable potential to reduce the number and severity of collisions within these areas and deliver significant benefits across the transportation, environmental and health agendas. The greatest benefit is to be gained by considering those estates where the potential for casualty reduction is greatest and giving priority to residential estates containing sensitive properties such as schools etc. and/or with recognised issues with through traffic.
- 4.2 The implementation of 20mph zones and speed limits, along with supplementary projects for influencing driver habits through the regular deployment of campaign signing designed to encourage lower speeds will help to promote the message that speeding in all residential areas is both dangerous and anti-social.
- 4.2 Should Cabinet decide to proceed with the proposed strategy then officers will implement the following process:
- Identify suitable schemes and establish appropriate boundaries where the speed limit will change from 30mph to 20mph.
 - Carry out surveys to establish existing mean speed limits within each scheme boundary and identify whether physical measures will be required.
 - Prepare scheme designs and cost estimates for each scheme.
 - Seek endorsement of the police and emergency services and consult with residents (including advertisement of Traffic Regulation Orders).
 - Consider the outcome of all consultations and review the proposals accordingly.
 - Seek the approval to proceed from the Cabinet Member for Neighbourhoods and Regeneration.
 - Implement the works on site and set an operational date for the required Traffic Regulation Order.
 - Monitor and review each scheme following its introduction.
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List of Background Papers:-

Transport Research Laboratory - Report 421 - The Effects of Drivers' Speed on the Frequency of Road Accidents, 2000
Department for Transport - Circular 01/06 - Setting local Speed Limits, 2006
Department for Transport - Strategic Framework for Road Safety, May 2011
Greater Manchester Public Health Practice Unit - Policy and practice: 20mph limits a public health intervention, November 2011
Greater Manchester Casualty Reduction Partnership - 20mph Limits and Zones, February 2012
British Medical Association - Healthy Transport = Healthy Lives, July 2012
Department for Transport - Draft Circular - Setting Local Speed Limits, July 2012 (Consultation Copy)

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