	<h2>Environment Committee</h2> <h3>14 July 2016</h3>
<p style="text-align: right;">Title</p>	<p>Traffic Calming Measures</p>
<p>Report of</p>	<p>Commissioning Director for Environment</p>
<p>Wards</p>	<p>All</p>
<p>Status</p>	<p>Public</p>
<p>Urgent</p>	<p>No</p>
<p>Key</p>	<p>No</p>
<p>Enclosures</p>	<p>Appendix A – Type of Traffic Calming Measures</p>
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<h2>Summary</h2>
<p>This Report sets out the Council’s current approach to Traffic calming Measures across the boroughs and seeks agreement on a formal Policy for future Planned Highways Improvement schemes and the use of Traffic Calming measures within them.</p>

<h2>Recommendations</h2>
<p>1. That the Environment Committee notes the current approach to Traffic Calming Measures as set out in this report.</p>
<p>2. That the Environment Committee approve the following Policy Wording:</p> <p><i>‘Generally this Council opposes the use of vertical traffic calming measures, but acknowledges that calming measures can sometimes be appropriate. Officers should not, though, propose these apart from in exceptional circumstances and with all such decisions reserved for members.’</i></p>

3. That the Environment Committee approve the process for the Consideration of Planned Maintenance schemes set out in paragraph 2.

1. WHY THIS REPORT IS NEEDED

1.1 This report is needed to provide Members with an insight into the historical working practices behind the introduction, retention and removal of traffic calming measures in London Borough of Barnet. In addition it is intended to provide Members with an overview of the advantages and disadvantages of different of measures to allow Members to agree a Policy on Traffic Calming Measures.

1.2 BACKGROUND

1.2.1 In the early 2000's , the Council began a significant road resurfacing programme which included a review of traffic management measures, including existing traffic calming measures. At the time of the road surfacing programme there was concern that road (speed) humps caused delays to traffic (including the emergency services) and that traffic calming on one route could cause higher speeds and risk-taking by drivers elsewhere through rat-running to avoid such measures and that vehicles driving over speed humps create additional noise and air pollution. It was suggested that road humps can reduce the journey time reliability of buses and cause discomfort to bus passengers when buses travel over the humps.

1.2.2 The Report of the Cabinet Member for Environment - 'Traffic Management – Future Strategy' dated 5 November 2002, sought to approve a revised strategy for progressing Traffic Management across the borough.

1.2.3 Paragraph 8.5 details the approach to traffic calming measures, it stated the following:

'Traffic calming on local roads will be a lower priority. Many physical measures to calm traffic have been put in over recent years. As a result the council has received representation on number adverse impacts from local residents which in some instances, have resulted in the measures being removed. The problems they experience include noise and vibration, reduced accessibility, loss of kerbside parking and sign and road marking proliferation. There can also an adverse effect on emergency vehicle response times. In some instances, the initial objective of reducing extraneous traffic movements has not been achieved as the problem has displaced onto adjacent local roads. By

giving priority to improving the performance of the main road network the desire to rat run should be reduced over time.'

1.2.4 The recommendation of the report was that the above 'Strategy for Traffic Calming Measures' be approved.

1.2.5 Traffic Calming Measures were not limited to road humps/cushions but included the following measures:

- Mini-roundabout (including on a junction speed table)
- Speed tables
- Speed humps
- Speed cushions
- Raised Tables
- Kerb build-outs
- Coloured surfacing
- Cycle lanes
- White line markings including central hatching

1.2.6 The following review process was used to assess roads that were due to be re-surfaced, which involved the following 3 stages:

Stage 1 - Technical Assessment

Prior to the removal of traffic management measures an assessment is undertaken by Officers to establish the initial aims and objectives of the traffic management measures, and assess to what degree the measures have been effective in meeting these. The assessment looks at the wider implications of removing or retaining the traffic management and considers accident data from prior to the introduction of the original measures. Similarly, respective traffic speeds from before and after the installation of the measures were considered.

Stage 2 - Consultation

Next, the Council consults the emergency services, the elected ward members, residents, and if appropriate, public transport providers/user groups, etc. before resurfacing commences. Residents are advised that their views will be sought following the work regarding reinstatement of the original measures, when they will have had the experience of both arrangements.

Stage 3 - Report and Decision

Finally, a synopsis of the findings is presented to the Executive Member and the relevant Area Environment Sub-committee chairman for decision of whether the Traffic Calming Measures should be re-instated.

1.3 CURRENT POLICY POSITION

1.3.1 The 2002 Cabinet Report decision approved a 'Strategy' for the traffic management but not a 'Policy on the removal or implementation of road humps/cushions'. The report stated that Traffic calming on local roads will be a 'lower priority'. Therefore, this report on 'Traffic Calming Measures' has been written to confirm the Policy position moving forward.

1.4 APPROVED AND PROPOSED TRAFFIC MANAGEMENT SCHEMES (WITH VERTICAL DEFLECTIONS)

1.4.1 In recent years requests have been received from residents and Ward Councillors for Traffic Management Schemes via correspondence, petitions, Residents Forum and Area Committees (previously Area Sub Committees) where speeding and volume of traffic have been the main areas of concern.

1.4.2 A number of these request related to roads where previous Traffic Calming measures have been removed following resurfacing. Concerns have been raised by local residents and Ward Councillors regarding increased vehicle speeds on these roads and despite Vehicle Activated Signs (driver feedback speed limit signs) being introduced these concerns have been on-going.

1.4.3 In addition, requests for traffic calming have also been received from roads where previously there haven't been any measures.

1.4.4 In both of these types of roads Traffic Management Studies to address the concerns of local residents and Councillors were undertaken and options were proposed with the intention of to reduce danger of excessive speeds from through traffic with minimal adverse effects on overall traffic flows. These studies assessed the existing arrangements on site and, analysed accident data, traffic speed and volume data and pedestrian usage and crossing counts.

1.4.5 The studies were undertaken within the context of the intervention criteria set by 'Priorities of the Traffic Management Budget' Cabinet Report of July 2002 (Appendix B).

1.4.6 Following the development of 3 Options for each road/area the Area Committee were asked to approve the following recommendations for Traffic Management Schemes:

- 1. That the Committee note the intention to address traffic management concerns on 'Example Road/Area';*
- 2. That the Committee be mindful of the Councils current approach to traffic calming;*

3. *The Committee decide whether or not vertical traffic calming features should be re-introduced/introduced on 'Example Road/Area';*
4. *Subject to a preferred option being chosen, the authorising Officers to proceed with commissioning a detailed design and associated public consultation with a view to implementation when resources are in place and following liaison with local ward members.*

1.4.7 Currently there are a number of schemes that include vertical deflections such as raised tables and/or speed cushions which have either been approved by Committee or schemes where feasibility is currently being carried out with the intention of developing Options that could include vertical deflections and other type of traffic calming measures.

1.4.8 In addition, currently schemes being developed within the Local Implementation Plan (LIP) 16/17 'Corridors, Neighbourhoods and Supporting Measures Programme' for 'Traffic Management and Accident Reduction', 'School Travel Plan Schemes and '20 mph' reviews potentially would include options that involve an element of vertical deflection in the form of raised tables at junctions/ crossing points or speed cushions.

1.5 NEW DEVELOPMENTS AND REGENERATION AREAS

1.5.1 On new developments, the aim should always be to achieve the desirable design speed values as set out in Manual for Streets Guidelines counter-balanced against the need to ensure expeditious movement of traffic within the borough and de-congesting the network. In greater majority of developments this should be through the use of junction design and changes in horizontal alignment. This approach should be complemented with the careful arrangement of buildings and landscaping so that forward visibility and sight lines at junctions reflect the design speed.

1.5.2 It is also recognised, however, that occasionally additional speed restraint measures may be required or may even be considered to aid the overall design. Conflict among various user groups can be minimised or avoided by reducing the speed and flow of motor vehicles. Ideally, designers should aim to create streets that control vehicle speeds naturally rather than having to rely on unsympathetic traffic calming measures. As far as is reasonably practicable, a development's design layout should preferably incorporate inherent natural and appropriate traffic and speed management features to obviate the need for post-development traffic calming control without necessarily dominating the visual appearance of the street.

1.5.3 This approach accords with the London Mayor's Transport Strategy (2010) which gives the prerogative to highway authorities in the capital to formulate

alternatives to achieve slower traffic speeds without necessarily resorting to vertical deflection measures. This formed the impetus for the development of kerb build outs, chicanes or other such preferred measures should be sympathetic in design and choice of materials to safeguarding the amenity of the built environment and street scene while continuing to ensure a minimalist approach with regards to road markings and signs.

1.5.4 A range of traffic calming measures can be considered and these could act in different ways, with varying degrees of effectiveness:

- **Street Dimensions** – These can have a significant influence on speeds. Keeping lengths of street between junctions short is particularly effective. Street width also has an effect on speed.
- **Reduced Visibility** – There is a link between appropriately considered reductions in forward visibility and reduced driving speeds.
- **Provision of On-Street Parking & Physical Features** – Parking layout design is an important consideration and can be used to create a natural or chicane effect to effectively change the horizontal alignment and thus curtail speeding
- **Reduced Corner Radii** – These are effective in slowing turning movements at junctions offering greater safety for pedestrians and cyclists. Overrun areas, constructed by slightly raising the surface within the limits specified in The (Traffic Calming) Regulations, can be provided to allow larger vehicle access. Overrun areas can be used at bends and junctions.
- **Changes in Priority** – Can be used to disrupt flow and therefore bring overall speeds down.

1.5.5 Speed restraint and traffic calming should be based around the concept of safety by design and the layout should be such that high speeds are impossible to achieve. All speed restraint shall be incorporated in the initial stages of road construction to ensure potential residents are fully aware of the nature and scope of the measures.

1.5.6 Traffic calming, as a blanket approach, should be unnecessary if the roads have been designed correctly. New developments are recommended not to use vertical traffic calming features such as speed cushions and humps as these may have detrimental effects on disabled and infirm road users. However, vertical traffic calming features such as raised tables at junctions may be suitable in new low use residential developments. Wherever possible, slower speeds should be promoted through other road alignment.

1.5.7 Where the Council agrees or decides that any traffic management or traffic calming measure should be implemented in order to mitigate the impact of a particular development, the developer will be required to fund the costs for the

promotion and construction of these measures. Costs shall include those associated with the processing of any associated Traffic Regulation Order.

- 1.5.8 It is essential that early consultation and discussions take place with the Council, during the planning application stage, to agree which traffic calming features are the most appropriate.
- 1.5.9 The introduction of self-enforcing traffic calming measures can bring great benefit to residential areas, in terms of both accident reduction and environmental improvement. By creating a safer environment, the accident potential is reduced as are the fears of residents, particularly parents and the elderly. This reduced fear in itself represents a real improvement in the quality of life.
- 1.5.10 Each situation must be investigated on its individual merits to assess the suitability of a traffic calming solution, if newly generated traffic is likely to use inappropriate roads. In relation to development proposals, the onus is firmly on the developer to demonstrate that, following detailed study, the effects of any generated traffic will (at least) be nullified by an appropriate traffic calming scheme.
- 1.5.11 A comprehensive area study of the existing highway network, traffic speeds and land use, including consultations with bus operators and emergency services, is required. The study must fully take into consideration the principles of scheme development as described in this policy, although public consultation is not required at this stage. However, assuming that the study confirms the need for a traffic calming solution, then a public consultation, as set down elsewhere in this policy, will be necessary and paid for by the developer.
- 1.5.12 In normal circumstances, all aspects of the study and any resultant scheme will be funded by the developer. All costs associated with construction and maintenance for the designated life of the scheme must also be borne by the developer.
- 1.5.13 In addition, there may be circumstances where developers fund traffic calming schemes voluntarily. However, it is important to note that the availability of voluntary developer funding will neither result in an unwarranted scheme being implemented nor influence existing scheme priorities.

1.6 TYPES AND DESCRIPTION OF TRAFFIC CALING MEASURES

- 1.6.1 Traffic calming is a term used to describe a wide variety of measures that can be introduced on the road network with the objective of reducing vehicle

speeds and collisions. Traffic calming is the most direct and effective way to influence vehicle speeds on particular roads while maintaining access. Traffic calming should produce a road network that encourages steady and safe flow of traffic, at a speed that is appropriate to other road users and the local environment. Measures should not force drivers to drive at a slower speed than appears reasonable, as this may result in frustration or poor driving attitudes when entering the calmed area.

1.6.2 Traffic calming can influence the choice of route taken by drivers, but in practice it has not proved a very effective tool in dealing with problems of "rat running" through residential areas. Where there are otherwise equally attractive routes, the introduction of traffic calming on one route may cause traffic to intensify on another, and the potential for this effect needs to be taken into account when considering any scheme.

1.6.3 Whilst many people feel that traffic calming is the answer to their problems, others feel that certain types of calming measures are an unnecessary inconvenience and a nuisance.

1.6.4 It is important to determine the purpose for which a scheme is intended before any choice of measure is made. Traffic calming measures are usually considered where there is either:

- A demonstrable safety problem with a record of personal injury collisions and inappropriate speed.
- A perceived safety problem where people feel threatened by the speed, volume and/or type of traffic.
- The area concerned is considered unsuitable for the type/volume of traffic passing through it.
- Vehicle domination of the street space can significantly diminish the quality of life for residents, shoppers and traders.
- To act as a deterrent for unsuitable vehicular use i.e. heavy goods vehicles and 'through' traffic.

1.6.5 Any one or a combination of these factors may lead to consideration of the use of traffic calming. However, the desired outcome must be clearly understood at the outset to ensure the most appropriate scheme is selected. Each request needs to be considered on its own merits and some measures will not be appropriate in certain circumstances. Guidance for all potential schemes should include:

- Traffic data.
- Number of accesses, properties and junctions.
- Role of the road e.g. abnormal load, emergency or bus route.
- Not to use a feature in isolation.

1.6.6 Other factors that need to be considered:

- **Lighting**

Any physical measure that changes the layout of the road requires adequate lighting so it can be seen at all times and meet set standards.

- **Utilities**

When considering measures which requires work below existing ground level (i.e. foundations for signposts), the utility companies are contacted and ask for plans showing any cables/pipelines in the area they may have. This has to be done whenever the 'ground is broken' and also forms part of national legislation. In addition, if the scheme is deemed to interfere with any equipment owned by that utility company, then the scheme may require re-designing or moving the equipment at a cost.

- **Safety Audits**

During design of any given scheme, safety auditing should be carried out at set stages to ensure that any works carried out on the highway do not actually do more harm than good.

1.6.7 There are a range of possible techniques that can be used. Vertical deflection traffic calming is nationally accepted as the most effective form of traffic calming while maintaining access. The following types of traffic calming measures are considered in more detail in Appendix C. Some of these are considered visually intrusive and controversial because of the inconvenience they cause for residents and others, they can also be expensive to install and maintain.

Physical Features

- Central Hatching
- Coloured surfacing treatments
- Removing markings and signs
- Mini Roundabouts
- Vehicle Activated Sign (VAS)

Horizontal Measures

- Narrowings - Priority Workings
- Central Traffic Islands

Vertical measures

- Road Humps
- Speed Cushions
- Raised Tables

Other Measures

- 20 MPH routes/zones
- Width restrictions

1.7 LIP 2016/17 ANNUAL SPENDING SUBMISSION GUIDANCE

- 1.7.1 Information provided by Transport for London (TfL) on the Local Implementation Plan (LIP) in the pro-forma application for LIP schemes:

Road humps²: ‘given the Mayor’s position on these, boroughs should exhaust all other options before considering the use of vertical deflections such as road humps and speed cushions. If a borough considers such measures to be the only viable option then a further discussion may be needed with TfL on their acceptability’.

² In a press release issued by the Mayor on 28 November 2008 he advised that “Road humps are often simply a lazy way of delivering slower speeds, and also do little to encourage people to walk, cycle and spend time using their streets. I want to encourage councils to be bold and to think much more creatively about ways of achieving slower speeds, and creating better streets.”

- 1.7.2 TfL raised concerns in the early 2000’s when road humps that they had funded and installed in roads adjacent to the TLRN were not replaced after resurfacing work took place.

1.8 PERSONAL INJURY ACCIDENTS (PIA’s) - KSI Accidents

- 1.8.1 Appendix D details the last three year PIA’s (Personal Injury Accidents) for KSI (Killed and Seriously Injured) accidents in Barnet with assigned by the police officer responding. In the last 3 year (Jan 13 – Dec 15). For KSI accidents the number of speed related contributory factors are 306 (exceeding speed limit) and 307 (travelling too fast for the conditions). Therefore, ‘Exceeding the speed limit’ was identified as very likely for 4.26% and possible for 3.93% of KSI accidents and ‘Travelling too fast for the conditions’ was identified as a very likely factor in 3.28% and as possible in 1.64% of KSI accidents.

2. REASONS FOR RECOMMENDATION

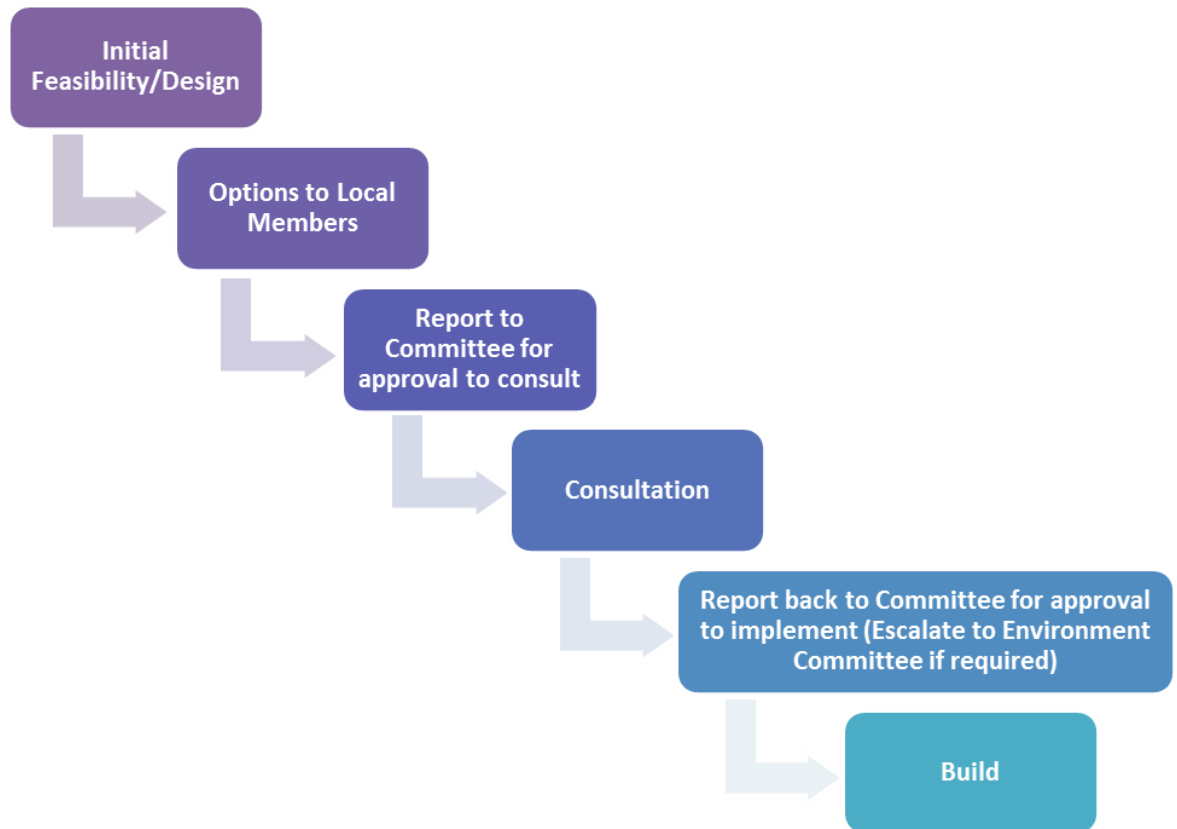
- 2.1 The Officer recommendation on Traffic Calming is that *‘traffic calming in any form that is appropriate for the situation should be considered’*.
- 3.2 The Committee are to consider and approve a Policy for the Traffic Calming Measures across borough.

“Generally this Council opposes the use of vertical traffic calming measures, but acknowledges that calming measures can sometimes be appropriate. Officers should not, though, propose these apart from in exceptional circumstances and with all such decisions reserved for members.’

- 2.3 It is therefore proposed that during the design process Re engineers will during the design process liaise with local members and submit proposals to

the Area Committee for approval prior to any consultation that may be required.

- 2.4 The process for assessing the need for traffic calming measures in a location would include the following stages:



3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDATION

- 3.1 The alternative options have been considered within the context of this report.

4. POST DECISION IMPLEMENTATION

- 4.1 That Traffic Calming features will be considered under the recommendation and Policy approved by this report. The development of each scheme for Planned Improvements of the Public Highways will follow the process approved by the Environment Committee.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

- 5.1.1 In relation to the Sustainable Community Strategy 2010-2020, Traffic Management Schemes should ensure the Council can deliver a successful London Suburb where Barnet is kept moving whatever the mode of transport chosen.

5.1.2 Traffic Management Schemes should support all of the 2015-2020 Corporate Plan strategic objectives and assist in delivery of Corporate Plan desired outcomes:

- A clean and attractive environment, with well-maintained roads and pavements, flowing traffic, increased recycling:
 - Barnet's streets will be kept clean and tidy, benefitting from investment in more efficient mechanical sweepers to better clean town centres and residential streets
 - the borough's roads and pavements will be in a good condition, with the council recognising that this has consistently been the top priority for residents for the past few years
 - traffic flow on Barnet's roads will be managed to reduce congestion, with regeneration areas designed effectively to keep traffic moving
- Delivering on borough Local Transport Objectives (and London Mayoral outcomes):

1. Ensuring more efficient use of the local road network

- a. Reduce congestion
- b. Improve the condition of roads and footpaths
- c. Improve the bus network (with TfL)
- d. Make travel safer and more attractive

2. Taking a comprehensive approach to tackling the school run

- a. Reduce car based journeys and increase levels of walking and cycling to and from school
- b. Reduce pupil parking near schools

3. Delivery of high quality transport systems in regeneration areas

- a. Comprehensive transport solutions in major development areas
- b. Public transport enhancements (with partners)
- c. Pursue major improvements to the strategic road network
- d. Town centre enhancement to improve the public realm, public transport services, short-trip making by walking, parking and servicing controls and accessibility improvements

4. More environmentally friendly transport networks

- a. Support the use of low emission vehicles including electric cars
- b. Encourage mixed use development that will help to reduce the distances people need to travel
- c. Making cycling and walking more attractive for leisure, health and short trips.

5.1.3 The Highway network is the Council's most valuable asset and is vital to the economic, social and environmental wellbeing of the Borough as well as the general image perception. They provide access for business and communities, as well as contribute to the area's local character and the resident's equality of life. Highways really do matter to people and often public opinion surveys continually highlight dissatisfaction with the condition of local roads and the way they are managed.

5.1.4 Future Commissioning Targets: Traffic Calming measures being the most appropriate and effective solution to contribute to the achievement of the following:

- Improving Barnet's Road Safety record in the borough and targeting particular users, pedestrians and cyclists for a higher degree of protection than they currently receive;
- Specifically outlined in the Environment Committee Commissioning Plan 2015-20;
- Balancing the needs of motorists with the needs of sustainable transport via the management of traffic speeds;
- Improving the management of traffic flows and parking;
- The population of the borough is growing and with it the need to keep roads safe and well maintained.

5.2 **Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)**

5.2.1 Costs for the different traffic calming measures are referred to in Appendix A.

5.3 **Social Value**

The Public Services (Social Value) Act 2013 requires people who commission public services to think about how they can also secure wider social, economic and environmental benefits. This report does not relate to procurement of services contracts.

5.4 **Legal and Constitutional References**

5.4.1 The Traffic Management Act 2004 places obligations on authorities to ensure the expeditious movement of traffic on their road network. Authorities are required to make arrangements as they consider appropriate for planning and carrying out the action to be taken in performing the duty.

5.4.2 The Council's Constitution (Responsibly for Functions, Annex A) gives the Environment Committee certain responsibilities related to the street scene including pavements and all classes of roads, parking provision and enforcement, and transport and traffic management including agreement of the London Transport Strategy Local Implementation Plan.

5.4.3 Road safety and traffic calming are carried out in accordance with the following Legislation and Guidance:

- The Highways Act 1980
- Road Traffic Regulation Act 1980
- The Transport Act 1981
- The Road Traffic Act 1991
- The Traffic Calming Act 1992
- Disability Discrimination Act (DDA) 1995
- The Highways (Road Humps) Regulations 1999
- Greater London Authority (GLA) Act 1999

- Road Traffic Reduction Act 1997
- The Traffic Management Act 2004
- Bus Priority Team Technical advice note BP2/05 – Traffic Measures for Bus Routes 2005
- Local Transport Note 1/07 Traffic Calming 2007
- Manual for Streets
- Manual for Streets 2

5.5 Risk Management

5.5.1 None in the context of this report. Risk management may be required for work resulting from this report.

5.6 Equalities and Diversity

5.6.1 Street design should be inclusive, providing for all people regardless of age or ability. There is a general duty for public authorities to promote equality under the 2010 Equality Act. There is also a specific obligation for those who design, manage and maintain buildings and public spaces to ensure that disabled people play a full part in benefiting from, and shaping, an inclusive built environment.

5.6.2 The 2010 Equality Act outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:

1. eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010
2. advance equality of opportunity between people from different groups
3. foster good relations between people from different groups

5.6.3 The broad purpose of this duty is to integrate considerations of equality into day to day business and keep them under review in decision making, the design of policies and the delivery of services. As part of the consultation development a separate stakeholder management plan is being developed to ensure that equalities issues are incorporated into the policy development, consultation and implementation.

5.7 Consultation and Engagement

5.7.1 Public Consultation on Planned Highways Improvements Schemes is undertaken on individual schemes basis and details of the proposals are outlined on the council's website.

5.8 Insight

5.8.1 The options developed for individual scheme are informed through analysis of injury accident data and on site observations of the issues.

6. BACKGROUND PAPERS

6.1 Cabinet Report (5 November 2002) Traffic Management – Future Strategy

- 6.2 Cabinet Report (22 July 2002) Priorities for the Traffic Management Budget
- 6.3 PIA's (Personal Injury Accidents) – Contributory Factors for KSI (Killed and Seriously Injured) including speeding.