Stockport Metropolitan Borough Council
Local Development Framework

Sustainable Transport

Supplementary Planning Document

Adopted December 2007

STOCKPORT
METROPOLITAN BOROUGH COUNCIL

有關持續性運輸之補充計劃文件

وثيقة تخطيط النقل التكميلية القابلة للاستمرار

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1 Introduction

1.1 This Supplementary Planning Document (SPD) provides supplementary guidance to the Unitary Development Plan Review (UDP Review) in order to explain the operation of the policies within the plan with regard to sustainable transport in Stockport. It should be read by the developers of any development that would be expected to result in a change in traffic patterns.

1.2 This document is designed to help developers understand the full range of possible interventions for the mitigation of effects of additional traffic that can result as a consequence of new development. The encouragement of a range of transport modes as suggested in this document is a means of addressing congestion, environmental issues, and improving infrastructure to support economic growth, increase social inclusion and address issues surrounding human health. The document does not solely focus on the provision for walking, cycling and public transport which are seen as the generic understanding of sustainable transport but also suitable provision for the transport of freight and the use of private motor vehicles to achieve a sustainable transportation network for Stockport when faced with future demands as a result of development in the borough.The policies within the UDP support this approach as a means of mitigating the effects of transport to development.

1.3 During the development for this document the Sustainability Assessment resulted in nine key objectives that this document addresses with relation to the policies:

- Ensuring that Sustainable Transportation is developed in relation to all developments to address access requirements for all users and assist in the development of sustainable communities.
- Protecting and enhancing human health by encouraging more sustainable and active transport options where practicable.
- Reducing crime and the fear of crime by design.
- Congestion reduction by encouraging the use of a range of transport modes.
- Planning utility routes that are also pleasant in order to increase mental well-being and increase / protect biodiversity (especially protected species/ habitats).
- Increased accessibility for services, education and employment via a range of transport modes to support inclusion and sustainability.
- That infrastructure is in keeping with the surrounding area and buildings to support the protection of historic and natural environment and promote regeneration without adversely effecting the future or current enjoyment of an area via the effects of transport.
- Encouraging the use of less air polluting modes of transport thus reducing the impact on human health and the environment (including climate change).
- Ensuring that quality materials are used in keeping with the needs of the area and the needs of sustainability.

1.4 This document is not intended to be a definitive guidance document for the design/ build standards that are to be applied to the transport infrastructure as these can be found in detail in other documents which will be identified within this SPD or provided by the relevant council officers.

1 Introduction

1.5 All new developments should be accessible by a range of transport modes in accordance with the road user hierarchy in policy ST 2.3 of the UDP.

ST2.3 ROAD USER HIERARCHY

Development proposals should assist in securing a highway network and related facilities which are safe and provide good accessibility for all users. Development should accord with the principle of considering the needs of the most vulnerable users first. The order of consideration will be:

(i) pedestrians

(ii) cyclists

(iii) public transport

(iv) goods traffic

(v) powered two wheelers

(vi) private car traffic

(vii) long-distance: freight and private car traffic.

Within each category special consideration will be given to people with limited mobility.

A Socially Inclusive Network

1.6 Government policy identifies four main transport-related reasons for “social exclusion”:

- geographical exclusion occurs where people do not live within easy walking distance of a bus route giving access to key locations like schools, hospitals etc.
- temporal exclusion occurs where people have difficulty gaining access to facilities at certain times of week. This can adversely affect access to many job opportunities
- personal exclusion affects people who are unable to use mainstream public transport because of disability or personal security. Aspects that can cause difficulty may include obtaining travel information, walking to a bus stop, poor lighting in the evening, or getting on and off vehicles. If any difficulties prove insurmountable, that person is excluded from using the network as a whole
- economic exclusion occurs where people cannot afford to travel. This problem has been growing in recent years, since the dispersal of facilities means that people now frequently have to travel further to reach food shopping, work, school and hospitals

1.7 A key aim of many of the sustainable transport and land use policies within the UDP is to improve the accessibility of developments by a range of modes and thus to a range of users. In so doing these policies serve the objectives of ensuring the promotion of social inclusion as well

as the use of sustainable transport modes to access sites for employment, retail, health or education purposes.

1.8 As policy ST2.3 indicates particular consideration needs to be given to people with mobility difficulties, such as elderly and people with disabilities.

1.9 Section 40 of the Natural Environment and Rural Communities Act requires local authorities to have regard to the conservation of biodiversity in exercising their functions. This includes the identification of opportunities to integrate biodiversity considerations into all relevant service areas as well protecting species, especially those receiving legal protection. The duty is not restricted to special or protected areas and planning and management of areas such as highway verges, which can provide habitat for wildlife and native plant species, is included within this. Further information can be obtained from the Guidance for Local Authorities on Implementing the Biodiversity Duty by defra (http://www.defra.gov.uk/wildlife-countryside/pdfs/biodiversity/la-guid-english.pdf)

Relationship to the UDP Policies

1.10 This document has been produced to supplement policies in the UDP by providing additional information on how to achieve sustainable transport access to a development in Stockport. It is recommended that this document be read in conjunction with the UDP and other SPDs such as the Transport and Highways in Residential Areas SPD. Although the advice in this SPD mainly relates to the Sustainable Transport Policies within the UDP there are also other relevant policies in the UDP that can be related to sustainable transport issues. The policies in the UDP are save documents in relation to the Councils Local Development Framework. If these policies change then the SPD will be reviewed to ensure that it remains in line with the policy of the Council.NOTE: all reference to policies unless otherwise stated will be referencing policy within the UDP.

1 Introduction

1.11 Policies of the UDP Review May 2006 with a particular relevance to this SPD include:

ST1 Sustainable Transport

The council will carry out works and control development in order to ensure accessibility by sustainable transport modes (including public transport, cycling and walking).

ST2 Strategic Transport Corridors

The main corridors in the borough will provide choice for sustainable travel modes, through provision of high quality public transport services on road and rail, the re-allocation of road space to public transport, walking and cycling, and adequate provision for freight transport. The existing strategic road infrastructure will be used to best advantage, and new road provision will be limited to that identified as necessary following multi-modal assessment of transport problems and solutions. Any new roads will be carefully planned and designed to minimise their environmental impact.

ST3 Transport and Social Inclusion

The council aims to ensure that adequate transport by means other than the car exists in all parts of the borough, so that no section of the community suffers unnecessary social exclusion by virtue of poor transport. This includes the provision of local services accessible by walking and cycling, and access to the wider transport network to reach jobs and education.

1.12 Other policies related to the SPD include:

TD1 Transport and Development

Transport and development should be located, designed and laid out to minimise, so far as possible, its impact on traffic levels, and to enable access by non-car modes of transport. Developers should put forward measures to encourage trip-making by sustainable modes of transport. Parking should be restricted especially at locations readily accessed by other modes, and measures devised to improve public transport to any sites or services inadequately served.

Development which will generate an increase in traffic should minimise its environmental impact and help to reduce the addition to congestion on the borough's roads. Developers will be expected to mitigate the adverse impacts of traffic through measures to route traffic away from the most environmentally sensitive parts of the borough and unsuitable roads.

Development resulting in the relocation of services and facilities closer to existing residential areas will be permitted.

Where appropriate, the funding of or contributions to transport enhancements will be sought.

TD2: Urban Design and Streetscape

The council will carry out works and control development in order to ensure a high standard of design and use of construction materials within the streetscape.

New development should maintain and enhance those parts of the road network with a green, visually attractive or peaceful character, and should seek to improve the roadside environment for walkers and cyclists, as well as residential occupiers, in the designated Homezones and quiet lanes, as well as in heavily trafficked or degraded areas

Status of the SPD

1.13 The SPD is intended only to provide guidance to prospective developers. All details pertaining to a specific application or development should be checked with the relevant planning officer. Pre-application discussions with planning officers are highly recommended in order to ensure that the application included all appropriate information to minimise delay and confusion in the application process.

2 Transport Assessment

2 Transport Assessment

TD1.2 TRANSPORT ASSESSMENTS

Planning applications for development with significant transport implications must be accompanied by a Transport Assessment. Where the Assessment shows significant impact on existing or proposed transport networks, measures to remove or reduce the impact should be put forward. If necessary, a commuted sum contribution to the improvement of off-site transport provision will be sought.

Other Policies referenced within chapter include:

ST2 Strategic Transport Corridors

What is a Transport Assessment?

2.1 As stated in TD1.2 above where developments will have significant transport implications Transport Assessments should be prepared and submitted alongside the relevant planning applications for development. The coverage and detail of the Transport Assessment should reflect the scale of development and the extent of the transport implications of the proposal. For small schemes the Transport Assessment should simply outline the transport aspects of the application. This is sometimes referred to as a transport statement. For major proposals the transport assessment should illustrate accessibility to the site by all modes and the likely modal split of journeys to and from the site. It should also give details of proposed measures to improve access by public transport, walking, and cycling to reduce the need for parking associated with the proposal and to mitigate transport impacts on the surrounding network. Where appropriate, a travel plan should be included. Discussions with a planning officer at an early stage would be beneficial especially when impacts and remediation issues are likely to be complex. These early discussions will also indicate the level and scope of the assessment required.

2.2 A suggested list of information that should be included in a Transport Statement or Assessment can be found in the Appendix Transport Assessment.

What is a development with a significant transport implication?

2.3 No absolute measures have been applied to the term developments in terms of significant transport effects to avoid issues that may arise due to qualitative factors relating to transport issues that such numeric thresholds could not capture.

2.4 When deciding if a transport assessment is necessary the following issue should be considered:

- Existing transport conditions/ provisions
- Scale and nature of the development proposal (floor area / employee numbers)
- New demands for travel modes by developments
- Other proposals/ recently agreed developments in the area.

- Access/ services/ parking for pedestrians, cyclists, and public transport (with consideration to be given to the needs of disabled people).
- Sensitivity of adjoining land use
- Transport strategies and policies applicable to the area
- Is it an air quality management area?

2.5 Indicative thresholds for transportation assessments are given in the Department for Transport Guidance on Transport Assessment. A copy of these thresholds can be found in the Appendix Transport Assessment.

2.6 Further advice can be gained from the planning officers as to the significance of a particular development proposal and the related assessment needs.

Suggested Considerations

2.7 In preparing a transport assessment the following considerations would be relevant:

Encouraging environmental sustainability

- **Reducing the need to travel, especially by car** – reducing the need for travel (e.g. working from home and home delivery), reducing the length of trips, and promoting multi-purpose or linked trips by promoting more sustainable patterns of development and more sustainable communities that reduce the physical separation of key land uses.
- **Tackling the environmental impact of travel** – by improving sustainable transport choices and by making it safer and easier for people to access employment, education facilities, health facilities, shopping, leisure facilities and services by public transport, walking, and cycling.
- **The accessibility of the location** – the extent to which a site is, or is capable of becoming, accessible by non car modes, particularly for large developments that involve major generators of travel demand.
- **Other measures which may assist in influencing travel behaviour (ITB)** –achieving reductions in car usage (particularly single occupancy vehicles), by travel planning and adopting [related] measures such as, encouraging public transport use through increased information, car sharing/pooling, and parking control. See Chapter 4 Travel Planning for further ideas.

Managing the existing network

- **Making best possible use of existing transport infrastructure** – for instance by low-cost improvements to the local public transport network and using advanced signal control systems, public transport priority measures (bus lanes), or other forms of Intelligent Transport Systems (ITS) to improve operations on the highway network. It should be noted that the capacity of the existing public transport infrastructure and footpaths is finite, and in some areas overcrowding already exists.
- **Managing access to the highway network** – taking steps to maximise the extent to which the development can be made to ‘fit’ within the available capacity by managing access from developments onto the highway network.

2 Transport Assessment

Mitigating residual impacts

2.8 Residual impacts are the changes in the traffic pattern that can be expected from a new development after it has been reduced as far as possible by other methods. This mitigation can be done through:

- **Demand management** – using traffic control measures to regulate flows.
- **Improvements to the local public transport network, and walking and cycling facilities** – for example, by extending bus routes and increasing bus frequencies, and designing developments to facilitate walking and cycling.
- **Minor physical improvements to existing roads** – it may be possible in some circumstances to improve the capacity of existing roads by relatively minor physical adjustments such as improving the geometry of junctions etc. within the existing highway boundary.
- **Provision of new or expanded roads** – it is considered good transport planning practice to demonstrate that the other opportunities above have been fully explored before considering the provision of additional road space such as new roads or major junction upgrades. Such provision would be completed in line with policy **ST2** Strategic Transport Corridors and its explanatory text .

Further Information and Help:

Guidance on Transport Assessment, March 2007, Department for Transport, at http://www.dft.gov.uk/162259/165237/202657/guidanceontapdf

Planning Policy Guidance 13: Transport, March 2001, Department for Community and Local Government, at http://www.communities.gov.uk/

Contact:

Development Control,
1st. floor, Hygarth House,
103 Wellington Road South, Stockport
SK1 3TT

Tel. No. 0161 474 3617

Email. admin.dc@stockport.gov.uk

3 Road Safety Audit

Policies referenced within chapter include:

TD 1.5 Safety and capacity on the highway network

TD1.6 Accessibility and the design of development

3.1 Road safety audit is a formal procedure for assessing incident potential and safety performance in the provision of new or improved highway schemes. The production of such an audit will support the desires of policies TD1.5 Safety and Capacity on the Highway Network and TD1.6 Accessibility and the Design of Development by applying a formal procedure to the development of the design and layout of the development in manner which is considered safe. The main aim is to ensure that all new highway schemes operate as safely as possible. Its application ensures a growing awareness of good road safety principles throughout the planning, design, construction and maintenance process to prevent incidents occurring in the future. All users of the highway should be considered including pedestrians, cyclists, equestrians, those working on the highway and motor vehicle users.

3.2 Within Stockport highway improvement that involves construction of new highway, or permanent change to the existing highway layout or features are expected to have been subject to road safety audit. For new developments this will be part of the planning requirements. This audit can be carried out either by the road safety audit team that exists within Stockport Council or by another capable independent body.

3.3 Road safety audits are to be carried out at several stages in a development involving a highways scheme:

Stage 1 completion of preliminary design
Stage 2 completion of detailed design
Stage 3 completion of construction
Stage 4 Monitoring

3.4 Developers will be required to submit a stage 1 audit with the planning application.

3.5 To facilitate a road safety audit developers will be required to provide a audit brief. For Stockport's road safety audit team an audit brief should contain the following:

- Scheme drawings showing the full geographical extent of the scheme and including the areas beyond the tie-in points.
- Details of approved departures and relaxations from standards.
- General scheme details, to help give an understanding of the purpose of the scheme and how the layout will operate, including design speeds, speed limits, traffic flows, forecast flows, queue lengths, non-motorised user flows and desire lines. Also details of any environmental constraints on the design.

3 Road Safety Audit

- Any relevant factors which may affect road safety such as adjacent developments (existing or proposed), proximity of schools or retirement/ care homes and access for emergency vehicles.
- For on-line schemes and at tie-ins, the previous 36 months accident data in the form of a 'mapped incident plot' and standard detail incident report (supplied from the Greater Manchester Transportation Unit). The accident data should cover both the extent of the scheme and the adjoining sections of highway.
- At audit Stages 2 and 3, details of any changes introduced since the previous stage.
- A3 or A4 size plans using an appropriate scale for the audit team to mark up for inclusion in the audit report.
- Previous road safety audit reports, exception reports, and a copy of the interim road safety audit file (where an Interim road safety audit has taken place).
- Contact details of the maintaining agent to whom any identified maintenance defects should be notified (by telephone and immediately confirmed in writing for serious defects) separately from the audit report.
- Details of the appropriate police contact.

3.6 Requests for further information may be made. Any information requested but not supplied to the audit team will be identified in the introduction to the audit report.

3.7 The Stockport Council road safety audit team known as CRASH can be contacted through the information in the box below for estimated costs of audits.

Further Information and Help:

- Design Manual for Roads and Bridges Volume 5 Section 2 HD 19/03
- Guidelines for the Safety Audit of Highways, Institute of Highways and Transportation

Contact:

CRASH (Road Safety Audit Team)
Traffic Services
Stockport Council
4th Floor Hygarth House
103 Wellington Road South
Stockport
SK1 3TT

Email: crash.investigation@stockport.gov.uk

4 Travel Plans

TD1.3 TRAVEL PLANS IN DEVELOPMENTS

The Council will require applications for non-residential development which are likely to have significant transport implications to be supported by a Travel Plan. This will detail the measures to be implemented to encourage staff and visitors to travel to the site using less environmentally damaging forms of transport, improve safety, and deal with freight movements so that environmental impacts are minimised.

What is a Travel Plan?

4.1 A travel plan is a package of measures implemented to manage the access to a development or institution so that it reduces the impacts of vehicle transport on the local environment and congestion and promotes sustainable modes of travel to and from the site and will be required as detailed in the policy above (TD1.3).

4.2 An effective travel plan will include measures to increase travel choice and reduce dependency on the car (for example offering discounted bus tickets or implementing a car share scheme) and measures to discourage unnecessary car use (for example by site design).

4.3 A travel plan is a dynamic process; rather than a one-off document. The plan should be monitored and developed over time to match the changing circumstances of the site. The monitoring and development process needs to be an integral part of the travel plan from the start.

4.4 Travel plans can bring a range of benefits and address a range of issues, including:

- Reducing the need to travel.
- Reducing congestion and peak time conflicts.
- Reducing energy use/reducing emissions.
- Cutting the costs of providing and maintaining car parking.
- Freeing up car park space for expansion.
- Addressing car park shortages and local congestion on / around the site.
- Improving access to the site and travel choice.
- Tackling social exclusion
- Facilitating improved pubic transport through economies of scale.
- Encourage healthier lifestyles

4.5 Workplace travel plans offer additional benefits in terms of cutting the costs of business travel, fleet operation and logistics and widening the recruitment area / improving staff retention. School and residential travel plans offer further benefits such as increasing safety and creating healthier environments for vulnerable people. Residential travel plans also support mixed development, housing, and social inclusion objectives through improvement of accessibility to and from new development.

4 Travel Plans

4.6 It is essential that applicants consult with the Council, before submission of a detailed (or outline) planning application, to determine whether a travel plan is required and what type/content may be appropriate. A summary of the possible measures for travel plans that may be considered can be found in Appendix Summary of Possible Measures for Travel Plan. Consultation with potential users, where possible, is also important as it may influence the design of any final scheme. A partnership approach between the applicant and the Council has been found to help achieve the delivery of effective outcomes.

4.7 Travel plans should be submitted together with planning applications which are likely to have significant transport implications including those for:

1. All major developments comprising jobs, shopping, leisure, education, health and services that will have a significant impact on traffic as identified in the transport assessment.

2. Smaller developments comprising jobs, shopping, leisure, education, health and services which would generate significant amounts of travel, as identified in the transport assessment, in, or near to, air quality management areas, and in other locations where there are local initiatives or targets exist for the reduction of road traffic, or the promotion of public transport, walking, and cycling.

3. Where a travel plan would help address a particular local traffic problem associated with a planning application.

4. All new and expanded school facilities should be accompanied by a school travel plan which promotes cycling and walking, controls parking and car access at and around the school to improve safety of all users, and includes, were practical, on-site changing and cycle storage facilities. (Further information about the development of a School Travel Plan contact School Travel Plan Adviser.)

4.8 For new residential developments with significant transport generation, as identified in the transport assessment, a travel plan is desirable though not as indicated in current policy (TD1.3) compulsorily. Even where alternative modes are not readily available, research indicates travel plans can achieve modal shift away from car use.

4.9 It is difficult to apply rigid thresholds where an extension is proposed for an existing use thus gradually increasing the impacts of transport generated by the site. Impact on local traffic should be considered and advise sought from the Council as to if a travel plan will be required for an extension.

Requirements

4.10 The requirements of the travel plan should be clarified during the pre-application discussions and the travel plan submitted with the planning application. This will facilitate timely determination of the application within current required time periods. The pre-application discussions should ensure that the travel plan addresses all of the relevant issues and policies.

4.11 At this stage large applicants maybe required to provide current and comprehensive data on a variety of measures, for example, traffic flows, car parking, public transport use, accessibility,

housing need/market, location and operation of other travel plans / elements of other travel plans in the area. When this is necessary the Council will request such information from the developer.

4.12 Additional travel plan requirements will vary according to the type of development:

Multi-occupancy of one site
Several small developments on one site may not individually require a travel plan. However, the cumulative transport impacts may justify an area wide travel plan for the entire site. This should be administered by the agent of the developer / site manager. Additional 'subsidiary' travel plans may be required in respect of sub-areas, depending on circumstances.

Speculative developments
A travel plan should be specifically tailored to the needs of the organisation / site for which it is written and the travel characteristics of the occupiers / employees / residents based there. In the case of speculative developments, a full travel plan may not be possible prior to commencement of development, as information available regarding the end user and their travel patterns is limited.

However, a travel plan should include as much detail as possible at the earliest stage. The transport assessment may allow the setting of targets. Site layout and design can anticipate travel needs and some measures can be implemented prior to occupation. Planning conditions will include implementation requirement

When submitting a planning application for a speculative development a framework travel plan should be submitted with a requirement that a 'final (full) travel plan' will be submitted either before development commences, or at a specified time subject to detailed schedules in respect of key elements. An indicative example of the process which may be agreed upon is given below:

Stage 1: Developer submits an interim travel plan or a framework travel plan, which has to be approved by the Council before progression to stage 2. Advice on the scope of these can be provided by the council.

Stage 2: Development begins.

Stage 3: Occupier(s) (which includes residents) move on to the site. Travel surveys (and collection of other base data) are undertaken within three months of occupation.

Stage 4: Submission and approval of final travel plan within six months of occupation. This may include a revised set of modal split targets if appropriate. These must be approved by the Council.

Stage 5: Implementation of final travel plan within 6 months of occupation.

End occupier(s) known, new development
A full travel plan, and implementation date, will be included within planning conditions for a development. Generally implementation is expected to be within 6 months of the commencement of occupation. It is essential for applicants to discuss travel plan requirements with the Council well in advance.

4 Travel Plans

Existing occupier extending on site / constructing new premises in borough
The organisation requiring the development should ideally have an established travel plan, or develop one prior to submitting the planning application. It should subsequently be implemented within three months of occupation of the new site / extension. It is essential for applicants to discuss travel plan requirements with the Council well in advance.

Schools
The Department for Transport and Department for Education and Skills have set a targets requiring that all schools have school travel plans by 2010. To support this, all schools are expected to develop a school travel plan prior to any application so that it can be submitted in conjunction with a planning application. Where schools are moving onto new sites, sustainable access to the site should have been a prior consideration and a travel plan initiated.

Residential
Residential travel plans differ from workplace, school and other institutional travel plans as they focus on a more varied pattern of journeys from the place of origin. They also generally require that an ongoing travel plan management organisation and structure needs to be put in place, as there is often no single company or institution to continue or coordinate travel plan implementation.

4.13 The type and content of residential travel plan that is desirable and deliverable will be dependent on the type, location and scale of the residential development and whether it is part of a mixed use development. Advice should be sought from the transport plan coordinators.

Travel Plan Promotional Groups
The travel plan must contain at least a 5 year plan of promotional activities linked to the ongoing promotion of the plan and more sustainable travel. This is designed to support the desire for a continued commitment to the promotion and monitoring of the travel plan as discussed in the explanatory text of policy TD 1.3. Alternatively the end occupier in work place sites may wish to join the Councils Travel Plan Promotional club for the 5 year period for a fee related to the number of employees/ residents and received promotional material as well as receiving advice on developing and monitoring a travel plan.

Monitoring of Travel Plans
During the first 5 years sites must report to the council as to the success of their travel plan. This monitoring will be done in relation to targets as identified within the agreed travel plan for the site concerned. This monitoring can include monitoring the percentages of users for

the site using different transport modes to access the site compared against expected target user percentages.

4 Travel Plans

Further Information and Help:

The essential guide to travel planning, 2007, http://www.dft.gov.uk/pgr/sustainable/travelplans/work/essentialguide.pdf

"The Travel Plan Resources Pack for Employers", 2006, Department for Transport, at: http://www.dft.gov.uk/pgr/sustainable/travelplans/work/resourcepackemployers/

"A Guide on Travel Plans for Developers", 2005, Department for Transport, at: http://www.dft.gov.uk/pgr/sustainable/travelplans/work/publications/aguideontravelplansfordevelopers

"Making Travel Plans Work: Lessons from UK Case Studies", 2002, Department for Transport, at: http://www.dft.gov.uk/pgr/sustainable/travelplans/work/publications/makingtravelplansworklessons5783

"Making Residential Travel Plans Work: Guidelines for new development", 2005, Department for Transport, at: http://www.dft.gov.uk/pgr/sustainable/travelplans/rpt/makingresidentialtravelplans5775

The following information is available from the Sustainable Transportation Team, through the Green Travel Plan Coordinators.

- "How a Travel Plan Can Help You Leaflet" produced by Association of Greater Manchester Authorities.
- The Department for Health's "Walk in to Work Out" leaflet.
- "Preparing your organisation for transport in the future: The benefit of green transport plans" DETR

Sustrans School Travel Plans website, www.saferroutestoschools.org.uk

DfT advice on School Travel Plans, http://www.dft.gov.uk/pgr/sustainable/schooltravel/

Contact:

School Travel Plan Coordinator
Road Safety Team
Hygarth House
103 Wellington Road South
Stockport
SK1 3TT

Travel Plan Coordinator
Sustainable Transport Team
Hygarth House
103 Wellington Road South
Stockport
SK1 3TT

5 Walking

ST1.4 Walking

Walking requires that walking facilities are maintained and improved in new developments and highway schemes, in line with the Boroughs Strategic Walking Network. Any replacement of existing walking facilities should be no less convenient, safe or aesthetically attractive and should be of equal legal status to those facilities being replaced. Where necessary improvements cannot be directly provided as part of the development, contributions to the enhancement of the Strategic Walking Network will be required to an extent commensurate with the impact of the development. Development should not sever formal routes used by pedestrians.

Other Policies referenced within chapter include:

ST1 Sustainable Transport

ST1.3 Interchange and Park and Ride Facilities

ST2.3 Road User Hierarchy

ST2.4 Access and Parking in the District and Local Centres

ST3 Transport and Social Inclusion

NE1 Biodiversity and Nature Conservation

5.1 Walking forms a part of most journeys, varying from a few steps to several miles so priority should be given to the needs of these users as is shown in the user hierarchy (ST2.3). Walking is key to sustainable travel, both in its own right and as a means of interchange with other modes of transport. This is supported in the UDP by its inclusion as a specified mode in ST1 Sustainable Transport, its inclusion in ST1.3 as a access mode to interchange and park and ride facilities, its inclusion in ST2.4 as an access mode to local district centres and ST3 as a method of increasing social inclusion through accessibility.

5.2 The ability of people to access facilities on foot has reduced as land use patterns have changed. This has resulted in a reduction in the accessibility of certain services to some sections of society who may not have particular modes of transport available to them. The policies within the UDP Review and other council policy are attempting to improve this situation so that sustainable transport modes including walking are a realistic alternative for accessing facilities. A primary way of doing this is through the promotion of walking facilities in new developments. Planning Policy Statement 13 states that walking offers the greatest potential to replace short car trips, particularly those under 2 km and so walking should be promoted especially for journeys with in this area from a development.

5.3 Often the perception of personal safety, the local environment, and the weather are major concerns. As a result of this it is important that developments have maintained and or improved

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the quality of the pedestrian environment to encourage the use of walking for longer sections of their journeys. The Greater Manchester Local Transport Plan Two (LTP2) priorities include ones relating to Air Quality, Congestion, Accessibility, and Road Safety. All these can be influence by measures to improve the quality of the built environment for pedestrians. The use of the Greater Manchester Concise Pedestrian and Cycle Audit (COPECAT) on schemes before their submission will assist in the provision of quality pedestrian infrastructure.

5.4 Developers of residential areas should refer to the Transport and Highways in Residential Areas Design Guide SPD as well as the information here when planning provision for walking.

Strategic Walking network

5.5 The strategic walking network is based on the routes identified as a result of the Strategy for Walking in Stockport 2000. There are two types of routes identified in the Borough:

- Key Walking Routes – these are routes that are identified as linking to key places in the borough such as Schools, Local Centres, and Medical Facilities, and
- Aesthetic Walking Routes - these are routes that while not as direct as key walking routes are aesthetically pleasing and so have an appeal above the utility level of the route. These may or may not be designated as public rights of way.

Key walking routes

5.6 Key walking routes have been identified throughout the borough. A strategic walking network map showing these routes can be found in the UDP, Diagram 10. These routes are direct routes that have been identified as linkages to two or more key places. Key places are destinations that people would be likely to walk to for example: medical facilities, educational establishments, major employment sites, district and local and other retail centres, public transport interchanges and recreational centres or areas.

5.7 As part of the Council's ongoing work to encourage the greater use of walking as a mode of transport and in line with policy ST1.4 and its explanatory text. These key routes must be considered during the design and implementation of a new development. This may include requirements being made to provide improvements to off-site transport infrastructure such as (but not limited to) improved surfacing, signing, crossing points, lighting and aesthetic improvements, such as soft landscaping and public art.

Aesthetic walking routes

5.8 Aesthetic walking routes are also identified within the strategic walking network as shown on UDP diagram 10. These routes are not necessarily the most direct routes to a location but have been identified as being more aesthetically pleasing than the key walking routes of the borough possibly due to the more green nature of the route but also due to routes having no or reduced traffic upon them making them safer and more attractive to pedestrians.The council encourages developers to consider the way in which these routes link up and the aesthetic quality of these linkages with a view to increasing continuity and the aesthetic appeal of the routes.

5.9 As part of the Councils ongoing work to encourage the greater use of walking as a mode of transport; and in line with policy ST1.4 and its explanatory text these Aesthetic routes must be considered during the design and implementation of a new development. The consideration should included the preservation and enhancement of the nature of the route, including the biodiversity or historic nature. The nature of the aesthetic enhancements will vary dependent on the reason the route is currently aesthetically attractive. It may, independent on the circumstances, include architectural features of frontages, greenery, planting, trees, public art, gardens or water features. Enhancements may also include improvements to the route in terms of requirements being made to provide improvements to off-site transport infrastructure as described for key walking routes above. Further details on Biodiversity and Nature Conservation can be found in Chapter 3 of the UDP specifically policy NE1.

Links to the network

5.10 Consideration with regards to walking infrastructure should not be limited to the strategic network; thought needs to be given to the quality of infrastructure provided within a proposed development and directly adjacent too it. This is in line with policies ST1, ST1.3 part (iv), ST1.4, ST2.3 and ST3. These walking routes will often be key to providing access to the wider transport network including nearby public transport facilities.

5.11 Developers need to give careful consideration to the access points of their developments with reference being made to the strategic walking network. This will improve the access of the site to the wider network.

General

5.12 When considering the needs of walkers there are several issues that should be taken into consideration including:

- **Surfacing -** The provision footways with even surfacing that is suitable for the level of usage and in keeping with the surrounding environment. In cases where there is a need to compromise between the Disability Discrimination Act (DDA) requirement and the historic character of an area advice should be sought on appropriate design for the development especially were conservation is an issue.

- **Width** - Footway widths should be varied between different streets to take account of pedestrian volumes and composition. Streets where people walk in groups or near schools or shops, for example, need wider footways. In areas of high pedestrian flow the quality of the walking experience can deteriorate unless sufficient width is provided. Pedestrian congestion through insufficient capacity should be avoided. It is inconvenient and may encourage people to step into the carriageway (If road safety problems for pedestrians or cyclists are identified, conditions should be reviewed to see if they can be addressed, rather than segregating these users from motorised traffic. Segregation should be considered as a last resort in most areas as mixed use environments create a more pleasant street atmosphere.)

- **Accessibility** - Considerations for mobility-impaired people including those with sensory impairment should be given to all walking routes proposed and suitable facilities provided as required in line with the Disability Discrimination Act legislation. As far as possible these

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facilities should be provided along the desire lines of able-bodied users. "Inclusive Mobility, A guide to best practice on access to pedestrian and transport infrastructure, 2005" gives guidance on design measures for use where there are steep slopes or drops at the rear of footways. Issues such as tactile paving location and accessible crossings must also be addressed. The Guidance on the Use of Tactile Paving Surfaces (1998) gives detailed information on the possible applications including those beyond those regularly seen.

- **Permeability** - The provision of direct convenient direct movements to be made is preferred when encouraging usage of an area by pedestrians. Note: High permeability is conducive to walking and cycling, but can facilitate problems of anti-social behaviour if it is *only* achieved by providing routes that are poorly overlooked, such as rear alleyways. A balance must be struck between the advice given in guidance such as that given in the secure by design guidelines (see further information box) to minimise access points and the need to provide direct routes for pedestrians.

- **Signing** - Clear signing to destinations should be given where appropriate. This is especially important for routes which do not run along the side of the carriageway to inspire confidence in the potential users. Information on the accessibility for mobility-impaired on these signs should also be considered where it may be necessary to inspire confidence in a route.

- **Traffic Speeds -**Pedestrians prefer an environment with low traffic speeds (general below 20mph).

- **Street Furniture** - The provision of street furniture needs to be accomplished without causing undue obstructions. Special consideration needs to be taken in terms of disabled users.

- **Crime -** Pedestrians generally feel safe from crime where:

    - their routes are overlooked by buildings with habitable rooms
    - other people are using the street;
    - there is no evidence of anti-social activity (e.g. litter, graffiti, vandalised street furniture);
    - they cannot be surprised (e.g. at blind corners);
    - they cannot be trapped (e.g. people can feel nervous in places with few entry and exit points, such as subway networks); and
    - there is good lighting provision.

5.13 These as well as being good design for walking and so aiding the aim fro walking routes to be maintained and improved as part of policy ST1.4 also supports the aims of policy ST3 on transport and social inclusion by improving the inclusive nature of the routes provided.

Different Types of Pedestrian provision.

5.14 Below are listed the different types of pedestrian route provision which could be used to provide infrastructure in relation to policy ST1.4 and guidance as to best practice design and application.

Footways

5.15 Footways run adjacent to the carriageway and are usually separated from the carriageway by an upstand of 125mm, except at pedestrian crossing points and vehicular crossovers. They should follow pedestrian desire lines and be included in visibility zones for other traffic. To ensure continuity of pedestrian movement, safe crossings should be provided at appropriate locations. The most appropriate feature should be chosen from the range available including puffin crossings, informal crossings across raised junctions and pedestrian refuges. The standard width of a footway in Stockport is 2m. There is no maximum width for footways. Additional width should be considered between the footway and a heavily used carriageway, or adjacent to gathering places, such as schools and shops. Further guidance on minimum footway widths is given in "Inclusive Mobility" (2005).

5.16 Where a development is not a designated homezone or a residential area of 25 units or less footways are a requirement (see Transportation and Highways in Residential Areas SPD)

Footpaths

5.17 Footpaths are separate from the existing footway/carriageway while being integrated into the main street pattern and providing safer or more direct pedestrian links. Footpaths may also be combined with cycle paths. In certain circumstances, footpaths may occasionally be used as an access route for emergency vehicles but non-emergency vehicular use is not permissible; collapsible bollards can be used to enforce this. All the issues for footways outlined above should also be considered in relation to footpaths.

Public Rights of Way

5.18 Similar in many respects to footpaths Public Right of Way footpaths, bridleways and Byways open to all traffic (BOAT's) should have the needs of their specialist users considered if they are being affected by a development. These routes should be surfaced in keeping with the natural environment. Specialist advice should be sought from the Public Rights of Way Officers.

Shared Use Facilities

5.19 A variety of shared use route can be built ranging from those which are designed for all varieties of users to share the same space, such as homezones, to those which are shared between just cyclists and pedestrians. The use of these types of arrangements should be considered carefully before their implementation.

5.20 Shared use facilities can be a viable means of moving pedestrians and other users around however, considerations when planning such routes should include:

- Needs of disabled people and the prospective number of disabled people that could be expected in an area. This is especially relevant to the visually impaired who need physical cues such as kerb lines, guidance tactiles, and signalised crossings to be able to safely orientate themselves and move safely and independently along a route. The lack of such features combined with a range of users will lead to shared use facilities being inaccessible and potentially dangerous for this user group. Examples of shared facilities which can cause

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issues include carparks with at grade crossings and pedestrian routes and open plazas and squares. See paragraph 5.26 for further guidance on this issue.

- Type of route and the desires of the users – commuter cyclists generally wish to attain speeds that are not compatible with the needs of pedestrians and unsegregated routes should not be considered. Equally pedestrians should not be expected to use shared surfaces where high numbers of vehicle movements are to take place.

5.21 In the case of mixed vulnerable user route crossing points, such as Toucan or Pegasus crossings, these must be designed to facilitate the needs of all expected users.

Build standards

5.22 These standards mainly relate to the application of policy ST3 on the provision of transport and social inclusion and also the way in which the road user hierarchy policy ST 2.3 is applied for pedestrians especially those with disabilities.

5.23 A range of hard materials can be used for walking routes dependent on potential usage and the local environment. The routes should be signed when applicable, may require surface markings, and will be adoptable by the highway authority if used to access local amenities when they are at a suitable standard to do so. While guidance should be sought on the specific build standards for a development especially regarding materials to be used and engineering standards the following specifications should be taken in to consideration.

Gradient and crossfall for pedestrians

5.24 Some people, particularly those with mobility impairments, find it difficult to walk on steep slopes. In general, gradients for footpaths should not exceed 5% (1:20), i.e. for every vertical rise of 1m, the horizontal distance should be 20m or more. Where this is not possible due to the local topography, a gradient of 8% (1:12) is the absolute maximum, except where there are alternative facilities for wheelchairs and prams when a maximum gradient of 12.5% is acceptable. Shared surface gradients should not exceed 7%. Opportunities reduce gradients to or near to the optimum standard, through the use of cut and fill should be fully investigated. The maximum length of a ramp shall not exceed 10m unless provision is made for a level landing, which should be a minimum of 2m in length. Handrails should accompany the ramp. For personal comfort the crossfall of the footway should be 1:40.

Steps in developments

5.25 Steps should be avoided in new developments where possible. If steps are necessary due to topography an alternative footpath or footway without steps must be provided. This may take the form of suitably graded ramped access for the elderly, children in pushchairs and the mobility impaired. Where steps do exist, seating should be provided close to steps to enable the elderly or infirm to rest before continuing their walk. In accordance with the DDA requirements, steps are to be indicated with ‘Corduroy’ paving and handrails provided. To help the people who are visually impaired there is a need to provide colour contrast on the edge of steps so that they can see the

edge of one step down on to the next. They should also be boxed in if their overhang posses a bump hazard for the visually impaired.

Guidance path surface and information surfaces for the visually impaired.

5.26 Reference has already been made to the need to guide visually impaired people in areas were they may become disorientated. The further guidance below on this subject should be used in coalition with the more detailed guidance available (see Further Help and Information).

Guidance path surface

5.27 For areas where there is no kerb or where visually impaired people need to be guided around or too a specific location guidance path may be used. The path is formed using colour contrasting tactile which have bars running in the direction of travel. layout of the path will be determined by the specific location but the path should be 800mm wide (with unobstructed space on each side also at least 800mm wide) as straight as possible and, in busy shopping centres, with a minimum 2000mm of unobstructed space between the path and the property line. At corners and t junctions the surface bars should run transversely across the path for 1200mm before the bend bends other than right angles, the bars should be turned to follow the direction of travel. Layout of the pathways must not be too complicated advice from users should be sought.

Information surface

5.28 This surface is of contrasting colour and does not have a raised profile but is made of a material that is slightly softer underfoot than conventional paving materials, for example neoprene rubber. The surface can be used to draw attention to facilities such as bus stops, help points, telephone kiosks, cash dispensers, etc. the surface of the material should be level with the surrounding area. A space of 400mm should be allowed between the facility and the start of the surface, the surface itself should be at least 800mm wide or the full width of the facility, whichever is the greater. The exception to this is where the facility is an entrance or window (eg for a ticket office) when the surface should be no wider than the facility itself. Layout of the pathways must not be too complicated advice from users should be sought.

Dropped kerbs at crossing points

5.29 It is difficult for the elderly, disabled, and those with pushchairs to cross roads and junctions without dropped kerbs. These should always be provided where there is a desire line for pedestrians to cross. It is also important to convey messages to the visually impaired at controlled and uncontrolled crossing points through the provision of tactile paving. Different types of tactile surfaces have different purposes, and each should be used for its intended purpose. The gradient of the dropped kerb should not be greater than 8% and the kerb level and the carriageway surface should be flush.

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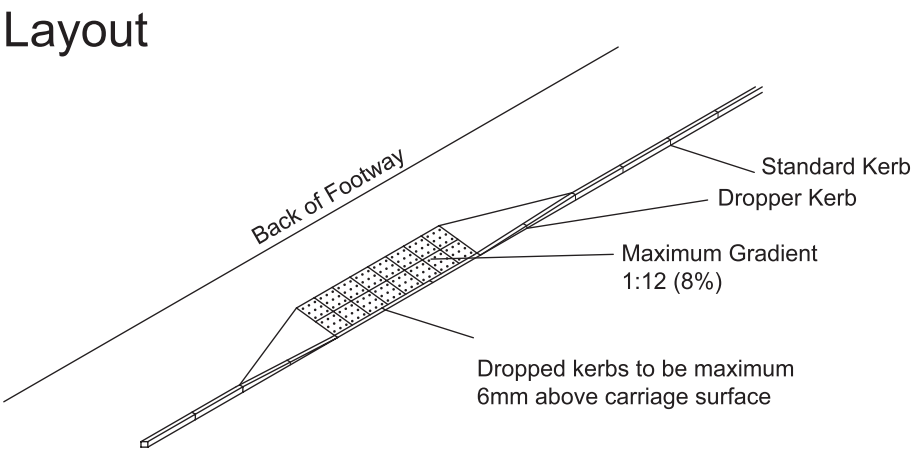

Figure 1 Dropped Kerb at crossing point

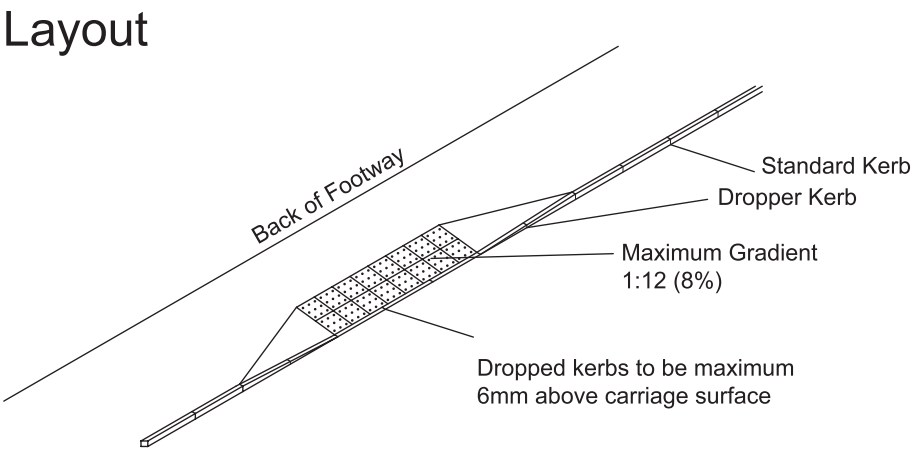

Figure 2 Dropped Kerb at crossing point

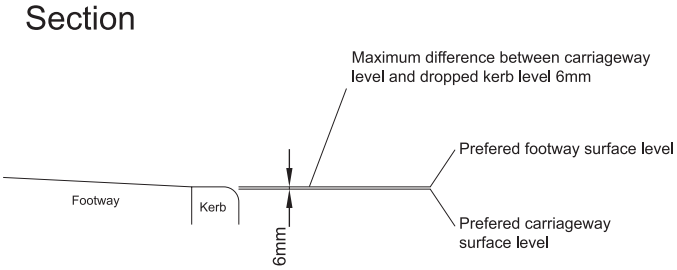

Figure 3 Cross section of a dropped kerb

Post-development footway reinstatement

5.30 All developments fronting existing roads will be expected to reconstruct the footway fronting the site following completion of construction works. This is necessary due to the extent of damage to footways and verges which occur during the construction process. Such re-construction will include provision of new footway crossings, closure of old footway crossings and provision of pedestrian drop crossings as necessary. In conservation areas, The Town Centre or District Centres, there may be a requirement to use appropriate non-standard kerbing/ paving materials

for the location. The requirement to reconstruct existing footways and the materials to be used will be included in planning conditions.

Footway parking

5.31 In the interest of the provision of maintained or improved walking routes with relation to policy ST1.4 which are inclusive of all users the issue of footway parking is discussed below. Damage caused to footways in the Borough as a result of vehicular overrun is a major problem. While driving and therefore parking on the pavement is illegal and the council will continue to discourage it developers should consider in within the design process and the ways in which they can limit its occurrence and diminish its effects. One of the main effects of this issue is the development of trip hazards for walkers. Therefore this should be considered when deciding upon the appropriate surfacing to be used in different types of development.

5.32 There are various forms of potential mitigating action that can be taken. Bituminous footways stand up to vehicular overrun better than flagged footways, and they can deform in a manner which does not produce cracks and trip hazards.

5.33 On flagged footways it is possible to protect the flags from vehicular overrun by several means:

- Providing alternative parking provision, for example in specified bays
- Upgrading of the modular flag and bedding material laid to the appropriate specification.
- Providing a bituminous, concrete, or block paved strip along the carriageway edge of the footway thus providing a buffer area on the pavement that will be less easily damaged by such overrun.
- Positioning bollards and/ or barriers to protect the footway at vulnerable points

5.34 There are issues with these related to cost, the restricted use of the footway due to street clutter, and a loss of areas where there previously was the possibility for grass verges which all should be considered when deciding on the best ways to provide a balance between the needs of the pedestrian and parking issues. Further advice on this can be found in Parking and Streetscene.

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5.35 To avoid instances of footway parking in new developments the minimum carriageway width is 5.5m as at this width drivers will park on the carriageway without fearing their car being struck by passing vehicles.

Further Help and Information:

Greater Manchester Walking Strategy, 2002, Association of Grater Manchester Authorities at:
http://www.gmltp.co.uk/pdfs/A1_3_walking_strategy.pdf

Guidance on the use of Tactile Paving Surfaces,1998, Department for Transport, at:
www.dft.gov.uk/transportforyou/access/tipws/guidanceontheuseoftactilepav6167

Traffic Advisory Leaflet 5/05, Pedestrian Facilities at Signal-controlled Junctions parts 1-4, Department for Transport at:
http://www.dft.gov.uk/pgr/roads/tpm/tal/signsandsignals/pedestrianfacilities/pedestrianfacilitiesatsignal4097

Secure by Design Principals, 2004, Association of Chief Police Officers, at:
http://www.securedbydesign.com/pdfs/SBD-principles.pdf

Inclusive Mobility, A guide to best practice on access to Pedestrians and transport infrastructure, 2005, Department for Transport, at:
http://www.dft.gov.uk/transportforyou/access/tipws/inclusivemobility

6 Cycling

ST1.5 CYCLING

The Council will require that the needs and safety of cyclists are provided for in new developments and highway schemes. Where necessary improvements to transport infrastructure to aid cyclists cannot be directly provided as part of the development, fair and reasonable contributions commensurate with the impact of the development will be required. Development should not sever formal routes used by cyclists, or unreasonably prevent accessibility by cycle, unless suitable alternatives are provided. Adequate cycle parking should be provided at new developments in line with the Council's adopted cycle parking standards.

Other Policies referenced within chapter include:

ST1 Sustainable Transport

ST1.3 Interchange and Park and Ride Facilities

ST1.5 Cycling

ST2 Strategic Transport Corridors

ST2.3 Road User Hierarchy

ST3 Transport and Social Inclusion

TD1.6 Accessibility and the Design of Development

L1.8 Strategic Recreational Routes

6.1 In the process of delivering on policies ST1, ST1.3 (iv) ST1.5, ST2, ST2.3 and ST3 the following issues regarding cyclists should be considered.

6.2 Cyclists need routes which are coherent, direct, safe, attractive and comfortable. The aim of the Council is to develop a network of routes and cycle friendly zones which fulfil these needs therefore new development should have regard to this. Existing and proposed infrastructure needs to take into account the requirements of all road users, in the context of the hierarchy of users this looking at the needs of cyclists as being secondary only to that of pedestrian users. In addition to safe routes a range of other cycle facilities need to be provided, including secure cycle parking and interchange with other modes.

6.3 To support cycling as a viable alternative to the car, especially for local journeys, Stockport is developing a network of cycle routes and introducing supporting infrastructure for cyclists. Other methods such as publicity and training could be included in a developments travel plan. Policy TD1.6 calls for the provision of pedestrian and cycle access that is safe and convenient and consequently developers of developments with significant transport impacts as defined in the transport assessment should not submit their schemes until they have been put through an audit

6 Cycling

of cycle facilities using COPECAT . For more information on assessing schemes please contact Stockport Council's Cycling Officer.

6.4 Where large developments are being considered detailed cycling elements for the travel plan should be developed to help the design and layout of the development be fully accessible to all modes of transport including cycles as requested in policy TD1.6. This should demonstrate that cycling has been fully integrated into the development and the wider environment. In rural areas demand needs to be ascertained through site surveys and monitoring prior to designing a scheme. This is to ensure that high quality cycling facilities are provided. Well designed cycling facilities will decrease real or perceived conflict on the roads and so the impression among members of the public that cycling is dangerous will be reduced. In some cases badly designed facilities can be worse than the absence of facilities in an area and so they must be avoided. New developments can provide a key way of providing cycling infrastructure in to areas that in terms of facilities for those travelling by bike could be improved.

Strategic cycle network

6.5 The Greater Manchester Strategic Cycle Network document is maintained by Greater Manchester Transportation Unit (GMTU) and so can be consulted in terms of possible linkages that can be created in to the network from a new development or redevelopment area. Maps of the Stockport cycle network can be provided by Stockport's cycling officer.

6.6 Cycle routes that can be used to meet the needs of policy ST1.5 include cycle ways, cycle lanes, cycle crossings and lightly trafficked roads, forming routes between key destinations, such as education establishments, employment and shopping areas, and residential areas. They are a means of bypassing or making safer use of busy roads, whilst still providing cyclists with direct, attractive and safe ways of reaching services and amenities. They should be signed, particularly where they depart from general traffic routes or provide opportunities for links to national or regional cycle routes (details of which can be obtained from Stockport Council's Sustainable Transport Team), and should intersect so that, over time, neighbourhoods will become increasingly cycle "friendly" and a network of cycle routes will be established across Stockport. Where possible routes should provide connections to cycle routes in neighbouring authorities and so aid the development of the Greater Manchester Strategic Cycle Network.

6.7 The Second Greater Manchester Cycle Strategy, which is supported by Stockport Council, in addition to including a network comprising of intersecting linear routes, also makes reference to 'cycle friendly neighbourhoods'. These neighbourhoods would be areas in which the speed, vehicle numbers and layout were cyclist friendly and so can be used with confidence by less able cyclists such as children. The logic of this is two - fold:

- it demonstrates to cyclists wishing to reach a destination off a linear route that there is provision for them
- it supports the view that cyclists should be catered for on the entire highway network

Cycle routes

6.8 It is important that the different types of cycle route are understood, as each serves a different purpose. The developer must agree with the development control highway engineers at a preliminary

stage what type of provision is to be provided. This will be dependent on the nature of the surrounding highway. Cycle routes include Mandatory Cycle Lanes, Advisory Cycle Lanes, and cycle tracks which are Rights of Way for cyclists and have legal status.

Mandatory Cycle Lanes

6.9 This is an on-carriageway facility operating with or in contra flow to general traffic. Contra flow mandatory cycle lanes are an effective way of increasing cycling permeability in situations of very low traffic flows where one way systems for traffic are in use. The effectiveness of cycle lanes depends on their width with wider lanes being perceived as safer. It must be indicated by a solid white line on the kerb side of the carriageway. Motorists are prohibited from entering the lane. The standard adopted for marking cycle lanes in Stockport requires that the presence of the lane should be reinforced by a 300 mm wide strip of green along the inside edge of the white line and the use of cycle logos. Where a lane crosses the mouth of a side road junction, it should be fully coloured green.

6.10 Where there are houses or shops with no off-street parking, provision for parked vehicles must be considered in order not to compromise the effective working of any cycle lane.

Advisory Cycle Lanes

6.11 This is an on-carriageway facility indicated by a broken white line. The effectiveness of cycle lanes depends on their width with wider lanes being perceived as safer. It may operate either with the general flow of traffic and its presence should be reinforced with a 300 mm wide strip of green along the inside edge of the white line and cycle logos. Whilst motorists may enter an advisory cycle lane when cyclists are not present, parking within it will be conditioned by any prevailing traffic regulation orders. On-street parking bays may sometimes be provided between the kerb and the advisory cycle lane with the necessary considerations for safety of users being considered as with mandatory lanes.

Cycle Tracks

6.12 Cycle tracks are purpose built or converted footpaths and footways. They may be segregated surfaces and as such would generally be expected to have a raised white segregation line or segregation blockkerb in the centre to separate pedestrians from cyclists and be clearly indicated by signs and markings.

6.13 All routes would be expected to be suitably surfaced for the type of usage, respect the minimum width requirement and where necessary exceed them to deal with the higher user level, have consideration for disabled users in terms of tactile paving requirements and route placement, be clear of obstructions such as sign posts and street furniture, have clear visibility splays and be well lit.

6.14 Shared surface footways should only be used where segregated footways and cycleways cannot be accommodated and cyclist and /or pedestrians flows will be low as they can lead to conflicts between cyclists and pedestrians. They must be designed with care and clearly signed to give guidance as to direction of flow for cyclists, who should also be signed to give way to pedestrians where a minimum 2m shared surface cannot be achieved.

6 Cycling

Link to the network

6.15 Where new developments or redevelopments take place away from the existing cycling network thoughts should be given to creating links to it or creating an area that is cycle friendly and so allows access to the network through non-formalised routes This supports policy ST1 by helping to ensure accessibility by sustainable means.

6.16 Routes will need to give consideration to the expected range of users for an area as a means of supporting policy ST3 on transport and social inclusion. Confident cycle commuters will still prefer to utilise main roads; balancing the benefits of a more direct route [where they may be assisted though a provision of cycle lanes] against its inherent hazards and poorer air quality. To deliver for less confident cyclists, cycle friendly neighbourhoods or cells will require linkages between them, overcoming the severances caused main roads, railway lines and rivers etc. In the context of a given development, options to provide for cyclists of all abilities will be identified. Less confident cyclists may more readily undertake leisure trips on traffic - free routes [such as the Middlewood Way]; this is still useful in Local Transport Plan terms: leisure cyclists may evolve to commuting by bike.

6.17 Route planning should look for quality environments that already exist and where possible take advantage of quieter neighbourhoods. These are purpose developed and make use of lightly trafficked 'safer' streets and other traffic free or lightly used routes, creating overall more pleasant environments for cyclists. Routing opportunities include relatively lightly trafficked residential streets and canal towpaths (where a working partnership with British Waterways will need to be established on a case by case basis) riverbanks or former railway lines that can be adapted to provide traffic free routes for cyclists. There are recreational routes and potential recreational routes identified in policy L1.8 as being protected and consideration should be given to this policy when considering cycling facilities for developments near or on these routes.

6.18 Studies show that at roundabouts, circulating cyclists are particularly vulnerable to accidents involving motor vehicles entering/leaving the roundabout. Wide entry widths and small diameter central islands further increase the accident rate. Avoiding this kind of roundabout on a cycle route is therefore desirable. Where it is not possible, options exist to either convert parts of surrounding footways to cycle ways (although care should be taken to design them in ways which do not lead to the development of a fragmented network), to increase vehicle deflection on entry and exit, so that vehicle speeds are controlled. Other options maybe considered if viable.

6.19 The directness of a route, priority of that route relative to other traffic, and a well maintained and swept surface are also important to cyclists.

Further Information and Help:

Published Greater Manchester cycle map [Stockport section] at

http://www.cyclegm.org/routes/downloads/stockport.pdf

Build standards

6.20 The build standards bellow will assist in the provision of parts of a high quality cycle network as desired by the explanatory text of policy ST1.5. Minimum widths for different elements of cycling infrastructure are indicated in Table below 'Minimum Standards for Cycle Facilities'. However, the Sustainable Transport Team will refer to the latest's DfT or other guidance for each development. These will all be scheme and location specific and, under exceptional circumstances, infrastructure may be delivered at below these standards in the interest of providing an integrated and continuous facility. Under such circumstances, it will be necessary to liaise with the Council's Cycling Officer or Sustainable Transport Manager.

Type of facility	Standard
Cycleway (a facility solely for the use of cyclists, segregated from but running alongside the main carriageway)	For a two way facility: 3m. Local narrowing to 2m over a short distance may be acceptable to retain existing features (e.g. trees with Tree Preservation Orders). Ideally there would be a 1m clearance between the edge of the cyclepath and any obstructions may permit 0.5m under certain conditions. For a one way facility, 1.5m is the desired minimum.
Forward visibility	20m. At cycle way junctions a 2.00m x 15m visibility splay is required.
Shared foot/cycle path	(see Table 3.1 'Minimum widths based on the category of road/local environment')
Contra-flow cycle lane	1.5m minimum recommended, 2m preferred
Cycle Lane (a defined lane on the carriageway for cyclists)	1.5m is a standard lane width (min 1.2m with the agreement of the cycling officer). An aspiration to deliver 2.0m wide cycle lanes should be acted upon where it can be ensured that this will not confuse other road users.
Segregated shared use path (for cyclists and pedestrians)	4m is the optimum width (min 3m) with allocation of available space to pedestrians and cyclists being scheme dependent. Raised white line or level difference should be provided.
Headroom Clearance	2.5m
Bridge Balustrade	Where there is a cycleway over a bridge, the balustrade should be at a height of 1.4m.

Table 1 Minimum Standards for Cycle Facilities

Kerbing

6.21 To enable a smooth ride for cyclists any kerbing should be dropped to the same level as the carriageway, and any necessary upstand limited to 6mm, where routes traverse the kerb.

6.22 Where footpaths or footways are adjacent to cycle ways, they should, wherever possible be separated through the use of: kerbing or a white line (profiled to DfT standards and with breaks

6 Cycling

to prevent rainwater ponding) Protection must be provided where a cyclist rejoins the main carriageway by the introduction of a coloured, 10m cycle lane complete with cycling logo.

Protection from vehicles

6.23 As well as providing the facilities for cyclists described above to the appropriate standards to protect cyclists from other vehicles, give way markings and bollards should be used where appropriate. Give way markings should be used at junctions of a minor road with a major road. These protect the cyclist on the major road from encroaching traffic.

6.24 Bollards or “A” frames should be used to stop motor vehicles from entering cycle ways which are either for the use of cyclists or shared provision for pedestrians and cyclists. Such barriers may need to be collapsible to ensure regular maintenance of the cycleway or in certain areas to facilitate emergency access.

Gradient for cyclists

6.25 Where provision for cyclists is alongside or shared with facilities for pedestrians, the gradient should not exceed the guidance given for pedestrians. Similarly, for cycle provision such as cycle lanes which run on the carriageway, the gradient should not exceed the guidance given for highway design. On cycle-only routes, any gradient steeper than 1 in 10 would generally be seen as a deterrent to cycling.

Cycle facilities at junctions

6.26 At signal junctions, Advanced Stop Lines (ASLs) should be installed ahead of the stop line for general traffic and installed at all signalised junctions unless significant issues have been identified. Feeder lanes for ASLs must be considered in the context of all vehicle movement to avoid conflict. The approach lane should preferably be 1.5 m wide, but at constrained sites narrower widths should be considered. The cycle reservoir should be between 4m and 5m in depth. If the reservoir is shallower than 4m to 5m in depth cyclists can feel intimidated by the close proximity of the vehicles queuing behind them. If the reservoir is deeper than this, motorists may feel encouraged to encroach into it. The cycle logo (The Traffic Signs Regulations and General Directions (TSRGD) Diagram 1057) must be placed in the cycle reservoir highlighted by green coloured surfacing to remind road users of its purpose and to discourage encroachment by motor vehicles. In conservation areas the reservoir may not require to be completely in filled with green and advice should be sought as to the appropriate layout for such sites.

6.27 When designing facilities at road junctions and crossings, a cyclist should be considered as a vehicle rather than as a pedestrian, and adequate sight lines should be provided at intersections. Thus cycle/pedestrian road crossing facilities whether controlled or not should be parallel and not shared except when specifically designed for shared used such as a Toucan crossing.

6.28 The minimum width for a Toucan crossing is 4m. The cycle signal needs to be installed on either the near or far aspect signal head, and the appropriate 'L'-shaped tactile paving used, in accordance with DfT guidance on the use of tactile paving.

Cycling 6

6.29 Where high levels of cycle usage are expected signal controlled cycle crossings should be considered.

Further Information and Help:

Cycling England at http://www.cyclingengland.co.uk/documents/C.04.pdf

Transport for London at
http://www.tfl.gov.uk/assets/downloads/businessandpartners/lcds_chapter8.pdf

A new edition of the **IHT's 'Cycle Friendly Infrastructure'** is pending at:
http://www.iht.org.uk/publications/technical/cyclefriendly.asp

Guidance on the use of Tactile Paving Surfaces,1998, Department for Transport, at
www.dft.gov.uk/transportforyou/access/tipws/guidanceontheuseoftactilepav6167

Traffic Advisory Leaflet 5/05 Pedestrian Facilities at Signal- controlled Junctions Parts 1 - 4, Department for transport, at
http://www.dft.gov.uk/pgr/roads/tpm/tal/signsandsignals/pedestrianfacilities/

Contact:

Cycling Officer
Sustainable Transport Team
2nd Floor Hygarth House
103 Wellington Road South
Stockport
SK1 3TT

Telephone: 0161 474 4593

7 Public Rights of Way

7 Public Rights of Way

ST1.6 PUBLIC RIGHTS OF WAY

The Council will require that on-site or adjacent Public Rights of Way are maintained and improved in new developments and highway schemes. The Council will not permit development where any route through it, whether definitive or established informal, will be lost unless it is replaced by an alternative that is no less convenient (in terms of the destinations it serves, the distance that it covers and the quality of its surface), is no less attractive (in terms of its outlook, the quality of its surface, maintenance, lighting and directness) and is of equal or improved legal status. The fact that a route is not included on the definitive Public Rights of Way map does not mean that it is not a Public Right of Way. In such instances, developers will be required to provide evidence that no Public Right of Way exists. Where such evidence cannot be provided then they will be required to dedicate a Public Right of Way that is no less convenient or attractive to users than the existing route.

Other Policies referenced within chapter include:

L1.5 Countryside Recreation

L1.7 Recreation Routes Maintenance and Expansion of Network

L1.8 Strategic Recreation Routes

L1.9 Recreation Routes and New Development

L1.10 Canals and Disused Railway

L1.11 Development Related to Recreation Routes

7.1 To help with the application of policy ST1.6 above the following paragraphs describe the legal issues surrounding Public Rights of Way. The policies L1.7, L1.8, L1.9, L1.10 and L 1.11 in chapter 8 of the UDP should also be considered when dealing with Public Rights of Way issues.

7.2 A public right of way is a way over which all members of the public have a right of passage. A right of way for an individual or any group other than the public at large is a private right of way. The term ‘way’ is a route along which people go. It is a generic term that can refer to a footpath, bridleway or a carriageway and can refer to use that is private, public or permissive. Since the word ‘way’ has no legal connotation, its use is convenient when the legal status of a route is uncertain or disputed.

7.3 The nature of the right determines the type of way, which under common law can be:

- A footpath, over which the right of way is on foot only.
- A bridleway, over which the right of way is on foot and on horseback, possibly with an additional right to drive animals.
- A public path is a way that is either a footpath or a bridleway.

- A carriageway, over which there is a right of way on foot, on horseback, and in or on a vehicle.
- A restricted byway, over which there is a right of way on foot, on horseback or leading a horse and a right of way for vehicles other than mechanically propelled vehicles, thereby giving a right of way for pedal cyclists and drivers of horse-drawn vehicles.
- A byway open to all traffic (BOAT), over which there is a right of way for vehicular traffic, but one that is used mainly for the purposes for which footpaths and bridleways are used.

7.4 A definitive map is a legal record of the public's right of way prepared by a surveying authority such as Stockport Council, showing footpaths, bridleways and byways open to all traffic (BOAT). If a way is shown on the definitive map, then that is legal, or conclusive, evidence that the public had those rights along the way at the relevant date of the map and has them still, unless there has been a legally authorised change. The legal requirement for surveying authorities to record these routes and describe them in a statement known as 'the Definitive statement' began in 1949. Surveying authorities are under a duty to keep the definitive map and statement under continuous review, and to make modification orders as necessary to keep the map and statement up-to-date as an accurate record of the public's rights.

7.5 Wherever possible the council would prefer for rights of way to remain on their original route through a site of development however, where this is not possible the route maybe diverted or in extreme cases closed. It should be noted that the policy L1.7 makes this last option highly unlikely. In policy ST 1.6 reference is made to the need for alternative routes to be no less convenient (in terms of the destinations it serves, the distance that it covers and the quality of its surface), and no less attractive (in terms of its outlook (this would be including both the path and surrounding landscape), the quality of its surface, maintenance, lighting and directness) and is of equal or improved legal status. Policies L1.5, L1.8 and L1.9 within the UDP also support this protection in terms of recreational routes and these polices and there explanatory text should be considered when dealing with PROW.

7.6 A commonly-used power, that is contained in section 257 of the Town and Country Planning Act 1990, is that an order can be made for a footpath or bridleway to be closed or diverted to enable development to take place. Development in this context would include buildings or works for which planning permission has been granted and development that is proposed by a government department.

7.7 Closure or diversion orders are made by the planning authority such as Stockport Council, that granted the planning permission, or which in normal circumstances would have granted the permission. The planning authority does not have to consult any other authority before making an order.

7.8 Since the need for closure or diversion arises from the granting of planning permission, the authority takes the existence of the path into account when considering the planning application and considers what effect the development will have on the path. The authority must publicise any planning application it receives which affects a right of way, by putting an advertisement in a local newspaper and by placing a notice on site. It must then consider any representations it receives in response to this publicity.

7.9 It should not be assumed that the order has to be made or confirmed simply because planning permission exists. The courts have held in the past that, there is a need to consider the merits of

7 Public Rights of Way

the proposed change and the effect that it will have on the rights of those affected by it, especially as there is no provision for compensation.

Further Information and Help:

A guide to definitive maps and changes to public rights of way, 2001, Riddall J. and Trevelyan J Rights of Way. A guide to law and practice (3rd Edition).

www.iprow.co.uk

Contact:

Rights of Way Team
2nd Floor Hygarth House
103 Wellington Road South
Stockport
SK1 3TT

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Policies referenced within chapter include:

ST 1 Sustainable Transport

ST 1.1 Fixed Track Policy

ST1.2 Integrated Transport Corridors and Bus Network

ST1.3 Interchange and Park and Ride Facilities

ST2 Strategic Transport Corridors

ST2.3 Road User Hierarchy

ST3 Transport and Social Inclusion

8.1 An effective and efficient network of public transport service that serves Stockport's needs well is a central theme in the UDP Review transport policies and is referenced in policies ST1, ST1.1, ST1.2, ST1.3, ST2, ST2.3, and ST3. As part of the delivery of this network there is a need for new developments and changes of use to take in to account the changes in demands that will be made upon the network and react accordingly by the implementation of infrastructure on site and the provision of developer contributions for improvements of site to both infrastructure and service.

8.2 The Council favours the use of public transport:

- To support the social and economic activity patterns that exist, are planned or desired for Stockport including:
    - the regeneration of the Borough
    - helping Stockport make its contribution to the accelerated growth desired within the sub-region,
    - promoting of an inclusive community which, for example, requires transport equity to access work and leisure opportunities
- To offer a viable choice for journeys, particularly the daily commute, instead of the car, thus reducing the impact of private transport on the environment by achieving a switch to sustainable modes.

8.3 To achieve a switch in use to public transport there is a need to:

- Improve access to public transport
- Improve interchange facilities

8 Public Transport

- Improve the public transport network where new development and additional demand exists on the network
- Alleviate public transport problems
- Enhance the bus network by provision of priority links and improvements to links to reduce journey times.

8.4 Public transport is likely to be more viable if there is a sufficient volume and concentration of movements between locations and along corridors. Networks become established over time and people make work and housing decisions on the basis of existing networks. The council seeks to ensure that development in Stockport should be in locations that benefits from good public transport provision that provides an alternative to the car. To this end the UDP has identified the Town Centre and A6 area from Heaton Lane to Greek Street as a transport hub. See policy TD 1.1.

8.5 Access to and from public transport stops / interchanges should be as direct and attractive as possible this will support the demands of policy ST1.3 (especially point (iv)) and the application of policy ST2.3. This involves:

- Minimising the walking distances to public transport stops through convenient, accessible, location of building entrances
- Siting the buildings themselves at the 'front' of the site, with the car park behind, so that pedestrians do not need to cross a large car park to reach the bus stop or other public transport access.
- Balancing 'Secure By Design' principles that lead to fenced developments with the desirability of providing convenient, well lit and safe routes.
- Larger developments should have integrated public transport information systems.

8.6 The Greater Manchester Public Transport Executive (GMPTE) will wish to comment on developments directly affecting public transport infrastructure (existing or proposed); and developments which may have significant transport implications in terms of their trip generation or the fact that they are inaccessible by public transport The UDP acknowledges the need to work with the GMPTE in relation to public transport issues.

8.7 GMPTE should always be consulted on the following:

Bus Network Works requiring the relocation /alteration of a bus stop / shelter e.g. because the proposed access road adjoins a bus stop or adjoining a bus station. Works requiring removal or diversion of a road which currently is used by a bus route

Rail Network Works adjoining a Railway station or adjoining a station car park or on disused railway land

Future Schemes Works on line of a public transport scheme identified in the LTP2 such as the Metrolink proposed corridor.

New or Altered Routes Potential impact on the large network of new or altered routes needs to be assessed by the GMPTE

Further information and Help:

Land Use Planning and Public Transport, Greater Manchester Passenger Transport Executive, 2006, www.gmpte.com/landuse

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Fixed Track - Rail and Metro

ST1.1 FIXED-TRACK POLICY (METROLINK AND RAILWAYS)

The Council will safeguard the line of the proposed Metrolink extension from East Didsbury to Stockport Town Centre, as shown on the Proposals Map, from other development. The Council supports and will take account of the following fixed-track schemes when considering development proposals:

- the eastward extension of Metrolink from Stockport Town Centre to Marple
- measures to increase use of the Stockport to Altrincham line via Cheadle
- measures to increase use of the Stockport to Stalybridge line via Reddish
- new stations at:
- Adswood/Bridgehall
- Cheadle village
- High Lane
- Simpsons Corner
- Stepping Hill
- the extension of Metrolink connecting the Stockport (via East Didsbury) extension to the Manchester Airport extension
- the creation of a rail link from the Manchester Airport rail spur to the West Coast Mainline, running close to the alignment of the Manchester Airport link road and the A555
- measures to facilitate in the implementation of the proposed rail link between Derby and Manchester.

New developments should take account of the potential of fixed-track modes to assist in reducing road traffic and meeting the aim of modal shift in strategic corridors, making a contribution in accordance with Policy TD1.1.

The Council will not permit development which would inhibit future transport use of disused rail alignments unless it can be demonstrated that there is no realistic possibility of such use.

ST1.3 INTERCHANGE AND PARK AND RIDE FACILITIES

Transport interchange and park and ride facilities will be permitted provided that:

- the proposal is in accordance with a strategic assessment of transport needs, has been subject to an assessment of travel impacts, and forms part of the Local Transport Plan;
- where a proposal includes land in the Green Belt, it can be demonstrated that land outside the Green Belt is not available, the proposed site represents the most sustainable available option and the scheme can be designed without unacceptable impact on the openness or visual amenity of the Green Belt;
- where applicable, the proposed development is designed to take account of its location in the context of the Landscape Character Areas as defined in Policy LCR1.1 of this plan;
- the proposal is easily accessible by all relevant modes of transport including walking and cycling;
- the proposal can be accommodated without unacceptable impact on congestion or residential amenity.

The need to improve passenger interchange between Stockport bus and rail stations has been identified and should therefore be considered as part of any relevant development proposals.

8.8 The Disability Discrimination Act 1995 requires public transport services to be accessible safely and without unreasonable difficulty by disabled persons. New developments at stations or near stations must incorporate the needs of disabled people in to their plans.

8.9 Where there are rail facilities close to a large development, improvements to the rail facilities maybe required. These improvements will include enhanced pedestrian and cycle links, disabled parking provision, other car parking including local station park and ride as described in policy ST1.3's explanatory text, Kiss and ride facilities, directional signing, information, CCTV better lighting security enhancement, secure cycle storage and access improvements all as appropriate. Some of the funding for such improvements would be expected to come from developer contributions and on site transport links would be expected to work well with relation to the rail facilities These changes would be expected in support of policies TD1.1 and ST1.1.

8.10 When Metrolink stops are available near a site similar facilities provision should be made to these stops as to rail stops.

8.11 In accordance with policy ST2.5 as well as the affects of a development on the passenger elements of the rail network thought should also be given to the possible affects of the non passenger elements of the system. Shifting freight off road and on to rail will reduce congestion caused by road freight, but care should be taken to ensure that new rail freight facilities can be accommodated without detriment to the passenger network. There is also the need to ensure that such developments do not increase road traffic in the vicinity as a result of transhipment.

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Bus Network

ST1.2 INTEGRATED TRANSPORT CORRIDORS AND BUS NETWORK

The Council supports the creation and extension of a network of Integrated Transport Corridors and will take account of this network when considering development proposals. New developments should take account of the potential of the Integrated Transport Corridor network to assist in reducing road traffic and meeting the aim of modal shift in strategic corridors. Development proposals close to the network will be required to make a contribution in accordance with Policy TD1.1. Elsewhere, developments will be expected to maximise the use of existing bus services and/or promote new services to meet their travel needs, enhancing infrastructure and service levels where appropriate to mitigate the transport impact of their developments.

8.12 To meet with the needs of policy ST1.2 there is a need to consider the issues in the following paragraphs. The location of bus stops should be considered from the outset, and not added later in the development. The possibility of a new bus service, or extension to an existing one, should be discussed with Stockport Council and the GMPTE.

8.13 The Disability Discrimination Act (1995) requires public transport services to be accessible safely and "without unreasonable difficulty" by disabled persons. Accessibility to public transport is a key issue. GMPTE bus stops are used throughout the borough and thus achieve compatibility with low floor buses and hence minimise difficulties of access. Design specifications for these bus stops are available from Engineering Consultancy Services.

8.14 To assist in the successful delivery of policies ST1.2, ST2, to support the road user hierarchy ST2.3 and policy ST3 consideration should be given to:

Location

Bus stops should be located:

- at natural focal points, for example a shopping centre, rail or metro link interchange or a road junction.
- away from residential and other sensitive frontages, where noise and disturbance is undesirable.
- with spacing which takes in to account of the density and type of the development, but as a guide should be 300-400m apart.

Safety

- On through routes, stops need to be erected either side of the road, but not directly opposite as this can cause traffic congestion and a safety hazard.
- On roads where there is a heavy flow of traffic, they should be situated close to pedestrian crossings.

- Stops should never be located between a signal detector and a stop-line, where a detector is in use.
- Barrier, railings and queue areas should be created where large numbers of passengers are likely to wait.
- Care should be taken to ensure that cyclists using segregated cycle routes are not brought into conflict with buses or bus passengers.
- Any speed management proposals that are on bus routes should be designed to be bus and cycle “friendly".

Infrastructure

- Bus stops should be well lit, both for passenger security and to illuminate the sign. A shelter should be provided wherever possible. A shelter with seating is essential at hospitals.
- Timetable information should be provided at all appropriate bus stops about the current services using the stop, appropriate facilities should be provided for elderly and disabled people including information in for blind people in audible format when appropriate
- On key strategic routes for passenger assistance 'Real Time Information' could be considered.
- Lay-bys can cause delays in buses rejoining the carriageway, and their implementation should be considered carefully with regard to the expected traffic flows in the area. Half-width lay-bys can provide a suitable compromise in some cases. However, possible safety issues in the use of these would need to be considered.
- Bus stop lay-bys should be designed to discourage parking and loading in them. The use of coloured surfacing, and traffic regulation orders may be used to achieve this where necessary.
- Provisions for cyclists should be made available were feasible to allow for onward linking journeys.

(Provision of the bus stop pole, sign and shelter needs to be made through GMPTE)

Site Layout

- Where practical developments should allow for the future possibility of buses running through the site by, providing through routes, roads of suitable width and ‘bus friendly’ traffic calming measures.
- New schools should have bus and separate coach facilities designed within the grounds.
- Stops should be staggered so that buses can stop tail to tail and move away from each other when they depart from the stop to reduce bus-on-bus delays and traffic congestion where buses are on different routes, but using the same street or the same stop.
- Bus priority measures may be appropriate within developments to give more direct routing or to assist buses in avoiding streets where delays could occur for example, bus only links (which may be shared by cyclists), priority at signals, or electronically controlled bollards.
- Footways at bus stops should be wide enough for waiting passengers while still allowing for pedestrian movement along the footway. This may require local widening at the stop.
- Bus routes are likely to require a more generous swept path to allow efficient operation. While it would be acceptable for the occasional lorry to have to negotiate a particular junction with care, buses need to be able to do so with relative ease. The level of provision required for

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the movement of buses should consider the frequency and the likelihood of two buses travelling in opposite directions meeting each other on a route.

- Purpose-built buses, from 'hoppers' to double-deckers, vary in length and height, but width is relatively fixed.

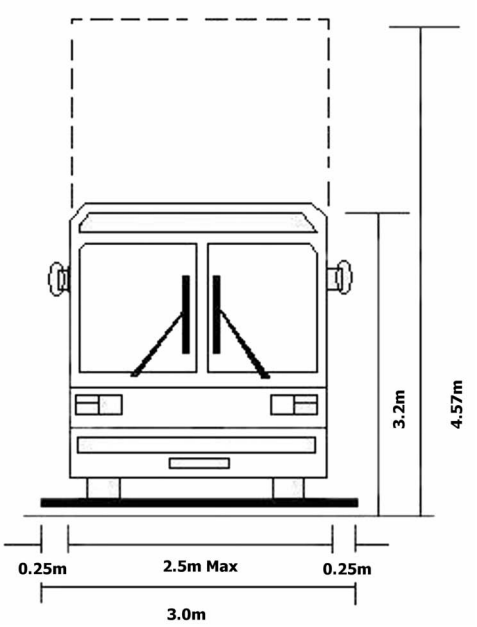

Figure 4 Example Bus Sizes

8.15 In some areas all of these may not be achievable or necessary, in which case safety should dictate the deviation from the ideal.

9 Traffic Management

TD1.5 SAFETY AND CAPACITY ON THE HIGHWAY NETWORK

Development which would have an adverse impact on the safety and capacity of the highway network, that cannot be alleviated by transferring trips onto other modes, will not be permitted unless it can be demonstrated that mitigation measures can be adopted. In proposals for new development, direct access will not be permitted onto motorways or motorway slip roads except in connection with an approved motorway service area. Similarly, direct access to roads on the Strategic Road Network will be restricted and development on these routes will be expected to contribute to sustainable transport measures identified in transport assessments. In considering applications for development which will result in a material increase in traffic movement on roads, whether adjacent to or remote from the site, the Council will have regard to the effect that the proposed development will have on highway safety and the material impact on other road users. Measures will be required to mitigate any such impacts, in accordance with the Transport Assessment of the development undertaken in line with Policy TD1.2 The creation of new access points onto the classified road network, and alterations to existing access will not normally be permitted unless it can be demonstrated that they will not result in significant detriment to highway operation and there will be no adverse impact on highway safety.

Other Policies referenced within chapter include:

ST1 Sustainable Transport

ST1.4 Walking

ST1.5 Cycling

ST2.1 Strategic Road Network

ST2.3 Road User Hierarchy

ST2.5 Freight Transport

TD1 Transport and Development

TD1.6 Accessibility and the Design of Development

DCD1.1 Design Principals

DCD1.6 Public Health Safety and Security in Developments

9.1 The paragraphs below are designed to help with the application of policy TD1.5 above.

9.2 Making the best use of our current road network is important for both economic and social reasons. Roads facilitate the transport of people and goods, and provide access to homes and

9 Traffic Management

businesses. The provision of additional road space, especially in towns and cities, is often impractical and undesirable. In most cases the local road network will be a finite resource with legitimate competing pressures from those that use it. There for it needs to be managed effectively.

9.3 Road users may have differing expectations. Reliable journey times are important to the majority of users, although this may be less important for leisure travel. Added to this are the needs of the Local Traffic Authority (Stockport Council) and the utilities to occupy the road in order to maintain and upgrade their equipment for the benefit of their customers. For everyone the ability to undertake their activities in safety is a priority (See chapter 3). The rapid movement of traffic should never be at the expense of an increase in casualties, environmental protection legislation, the Disabilities Discrimination Act, or Health and Safety and planning legislation.

9.4 Clearly potential conflicts need to be carefully handled and a coordinated, proactive approach is necessary to manage the network. The Local authority plays an important role in this through a range of powers and duties these include the Highways Act 1980 ("the 1980 Act") principally covering the structure of the network; the New Roads and Street Works Act 1991 ("the 1991 Act") covering utility street works; and the Road Traffic Regulation Act 1984 regulating the activities of road users and the Traffic Management Act 2004.

9.5 Some congestion is simply the outcome of the demand for road space exceeding the capacity of the road network. Such congestion can be caused by:

- Insufficient width of carriageway to cope with the demand;
- Outdated and badly sited road signs;
- Poorly designed road markings;
- Poorly implemented and poorly maintained traffic signals and traffic control systems;
- Poorly sited parking and loading bays and poor levels of enforcement of traffic and parking regulations; and
- Poorly sited bus stops.

9.6 In order to minimise the possibility of these, and other related issues affecting the road network outside a new development the development proposal received should consider these issues and work with the Councils traffic management team to formulate solutions.

Road Hierarchy

9.7 The strategic roads network [i] , within a hierarchy of roads serving different purposes, identifies the established main corridors for travel and transport within the borough. These roads typically

- Offer a choice of travel modes
- Carry high volumes of general traffic
- Are the principal means of access to established and latent areas of economic activity
- Provide routes that are an alternative to those through residential areas
- Provide links to elsewhere within the sub-region

i The Strategic Road Network in this instance includes all A roads and other important roads carrying over 10 000 vehicles a day or more than 6 buses an hour

- Are important public transport routes
- Are important pedestrian routes
- Are freight routes identified within the Greater Manchester Freight Route Network

9.8 This network facilitates residents and business within the borough, and its existence is used to segregate traffic from inappropriate areas. Given the preponderance and density of residential areas within the borough, it is not anticipated that the strategic route network would be increased with the exception of the South East Manchester Multi Modal Study Relief Roads proposals.

9.9 In line with policy ST2.1 it is desirable that development should be located adjacent to these strategic routes in order to benefit from

- Proximity to established networks and people's travel patterns for public transport and walking, thus assisting the introduction of travel plans as a condition of planning permission
- Easy access to roads appropriate for the movement of freight

9.10 Consultation with the Council about the current and future plans for the road network is encourage before development proposals are made especially for large developments.

Intelligent Transport

9.11 Technology such as Urban Traffic Management Control (UTMC) and Intelligent Transport Systems (ITS) can provide significant benefits to network operation for relatively low cost. ITS are a broad range of diverse technologies for managing transport networks and providing services to transport operators and travellers that authorities can use to support the delivery of a wide range of local transport policies and can be important in the delivery of policy TD1.5. ITS include:

- Urban Traffic Control - a system to better manage the use of the road network by co-ordinating traffic signal timings.
- Car Park Management - the use of electronic roadside signs to help drivers find vacant car park spaces quickly, which helps to reduce traffic congestion.
- Bus Priority - a method to reduce the journey time of late running buses by changing traffic signals in their favour.
- Travel Information - providing the public with accurate information to help them plan their journeys, or alter their plans should an incident occur.
- Access Control - a means of restricting access to an area for some of all types of traffic by the use of rising bollards or automatic barriers.
- Tidal flow systems.
- Systems to advise drivers of hazards, such as low bridges and to warn them to reduce speeds, if necessary, at dangerous bends.

Urban Traffic Control

9.12 Urban Traffic Control is another method of mitigating effects from increased traffic movement by better traffic management as required by policy TD1.5

9.13 Every signal in the borough is linked to the Greater Manchester Urban Traffic Control centre. This enables problems to be identified and solutions effected in the event that issues arise.

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9.14 The traffic signals are controlled by computers at the signal sites. There are a range of programs used including, but not restricted to:

- Fixed time plan systems (with or without vehicle actualisation) – normally used on junctions that are in lower usage and more out of the way areas – though some still exist at junctions that could benefit from being changed to other programme types.
- Scoot – This system reacts to live traffic flow and allows several junctions to work together in a system for more efficient vehicle movement.
- Mova - This system reacts to live traffic flow but is normally used on junctions that cannot be effectively linked to other junctions.

9.15 Developers may be expected to contribute to the upgrading of junctions near their proposed development where this is necessary to ensure the continued smooth flow of traffic in an area. This may or may not include the addition of or upgrade of the pedestrian phase and facilities at a junction.

9.16 Where traffic signals are installed as part of a development proposal a commuted sum will be required for maintenance equivalent to 15 years cost to the Council.

Car Parking Signs

9.17 Car parking management signs have been installed in the Stockport town centre at a number of Council car parks. These electronic signs identify free spaces in the car parks and reduces the congestion cause by visitor having to drive around several sites to locate a space. This enables the better flow of traffic into the area at busy times. When necessary developers may be asked to link car parks near to there developments to similar electronic signs for the reduction of the effects of traffic coming into a site in accordance with Policies ST2.4 and TCG1.3.

Travel Warning

9.18 Interactive traffic signs have been introduced at several locations within the borough. These signs are usually black, but activate when a vehicle approaches at speed. Normally there is an accident record associated with speed at the location, or a consistent speed problem and the sign issues the speed limit but, signs can also show sharp bend warnings, school area warnings and cycle route warnings. These signs maybe identified as being necessary to improve safety for users in the area next to or surrounding developments.

Close Circuit Television

9.19 Close circuit television can be used to increase the feeling of safety in highway users and encourage the use of sustainable transport modes and so supports policies ST1.4, ST1.4 it is also usful in the meeting of policy DCD1.6 which requires the safety and security of people and property should be properly addressed in the design of new development, landscaping, open space and environmental and highways improvement schemes.

9.20 Like most areas in Britain Stockport has several areas where Close Circuit Television (CCTV) is in operation to protect people and property in places such as car parks, shopping centres and main thoroughfares. CCTV in itself will not reduce crime. It must form part of a package of

measures that serve to make for an integrated and collective approach. Important issues such as civil liberties, Data Protection and local acceptance also need to be taken into account when designing a CCTV scheme. However, CCTV systems can minimise disturbance, vandalism and shoplifting but they must be monitored for them to be effective. Care should be taken with the positioning of trees as they can obscure the view of cameras particularly when in leaf. Co-ordination between CCTV and lighting proposals will maximise the night time benefits of both This is particularly relevant with regard to town centre development and buildings spaces which are used during the night e.g. 24 hour supermarket, petrol station, car park, footpath alleys.

9.21 Where possible, CCTV cameras should be integrated in to the design of the development such as being mounted on buildings as apposed to separate posts. Where freestanding cameras are necessary, they must not obstruct pedestrian circulation. Associated equipment, such as cables and control boxes should be concealed in building recesses or underground, allowing slimmer support columns to be used and reducing cluttered. Avoid siting cameras and associated fixings where they impede on the view from adjacent windows and ensure they are of the minimum size and designed to coordinate with the building colour; in order to be as unobtrusive as possible. This is especially important where the area is a conservation area.

9.22 Where CCTV is installed on the public highway as part of development proposals a commuted sum will be required for the maintenance and monitoring of the CCTV for the equivalent of 15 years cost to the Council.

Road Design

9.23 Road design can have an impact on the ease of movement and the safety of traffic movement in an area and so it is necessary to consider this in line with policy TD1.The layout of the highway network and its related junctions will depend on the hierarchy placement of the highway making up the development. To plan this it is important to consider:

- Type of vehicular traffic
- Capacity versus expected usage
- Speed required
- User manoeuvrability

9.24 The routes within the borough are designed with reference to the Design Manual for Roads and Bridges and the Manual for Streets where the nature of the routes allow these give advice on:

- Stopping sight distances
- Junctions
- Roundabouts
- Traffic signals
- Visibility splays

9.25 The details of these routes and the safety of proposed designs will be considered by the Council on a case by case basis. When developments are being put in as a change in use or intensification of use the protection of boundary features maybe a factor in the size of viability

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splays and carriageway width. However, as a general guideline, in new build, the following should be considered.

9.26 Office estates should have:

- Minimum carriageway width of 6.5m
- Minimum footway width of 2m
- Turning leads suitable for a ridged HGV 12m in length
- Minimum entry radii of 10m; dropping to 7.5 if swept path allows.
- Minimum visibility splays of 4.5m x 70m on a 30 mph road
- Minimum visibility splays of 4.5m x 45m on a 20 mph road
- (other options may be considered in specialist circumstances)

9.27 Industrial estates should have:

- Minimum carriageway width of 7.3m
- Minimum footway width of 2m; 600mm adopted margin if no footway is required.
- Turning heads suitable for a articulated lorry 16.5m in length
- Minimum entry radii of 10m.
- Minimum visibility splays of 4.5m x 70m on a 30 mph road
- Minimum visibility splays of 4.5m x 45m on a 20 mph road

Other considerations should include access necessary for emergency vehicles especially on cul-de-sacs. All carriageway markings need to conform with the Traffic Signs Regulations and General Directions 2002. The need for larger traffic development to include the use of sustainable urban drainage systems (SUDs) in their design in line with DCD1.1(i).

Speed Management

9.28 Speed management should be thought of at the start of the design stage for a project this will support policies ST1 and ST2.3. Speed management strategies should be in line with the general use and character of the area. Pedestrians, cyclists and other vulnerable users should be considered. A minimalist approach to both signing, lining and physical measures should be considered to minimise confusion and distraction for users while still having the necessary impact.

9.29 Excessive speed can be detrimental to safety on the carriageway and so policies TD 1.5 and 1.6 require appropriate speeds to be achieved. Options open for consideration include:

Layout – a lack of long straight stretches of road will discourage speed build up. Changes in road alignment, such as localised road narrowing, and the alignment of features by the side of the road will slow down users.

Junctions – tight radii on junctions can be used to force slower movement where appropriate, thought this will have a negative effect on the movement of large vehicles where this is necessary.

Gateway features

– these raise awareness of the change in use as traffic passes from on area to another. It has been used with effect in District and local centres as well as 20 mile per hour zones. They can include signing or landscaping displays that are unique to an area or type of area, traffic islands, and possibly changes in surfacing style and colour could be considered.

Roundabouts - the need to slow down to negotiate a roundabout can be an effective means of slowing traffic where space allows. The addition of traffic islands to the deflection arms can improve this effect.

Traffic Islands – are suitable to slow traffic on major estate roads, local, district and primary distributors. Consideration should be given to cyclists using routes where they are applied and bypass facilities considered where widths drop below 4 meters.

Build outs and Chicanes – these can be in the form of the narrowing of a road to one lane to make traffic travelling in a two way direction give way to each other or the creation of a deflection in a two way road. Again cycle by pass should be considered. Illumination of the chicane is necessary as is adequate warning of speed reduction, 40 –80m, before the chicane is reached.

Visual Narrowing – the narrowing of the road by the use of dragon's teeth or cycle lanes can result in slower speeds without reducing the ability of larger vehicles to use a route.

Homezones – see Transport and Highways in Residential Areas SPD (available at www.stockport.gov.uk/spd)

Raised junctions - these offer an effective way of enhancing opportunities both for road crossing points and for slowing down traffic. Specific care needs to be taken to ensure that the raised junctions do not appear to be part of the footway, especially for the safety of children and the visually impaired, include crossing points with tactile paving and bollards if necessary to stop over-run. The width of raised junctions should be the entire carriageway space, with the heights being between 50mm and 100mm. they should have a minimum 6000mm flat-top, with two ramps at 600mm.

Wide flat top humps - Wide flat top humps are the only form of road hump which are acceptable. They can create informal crossing points and slow traffic down. As with raised junctions, they should include crossing points with tactile paving and the ramps. They should have minimum 2500mm flat-top plateau, with two ramps at 600mm.

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Speed cushions - may be used to slow traffic down in existing areas, but should not be necessary in carefully designed new developments. Cushions are most commonly built in pairs transversely across the road but may be built in threes on wider carriageways, to discourage cars from trying to 'squeeze' between the cushions. The layout should also accommodate a cycle bypass. The side ramp gradients of speed cushions should not be steeper than 1:4, and on and off gradients should not be greater than 1:8. The maximum height should be 80mm, and the cushion should be between 2m and 2.5m in length. Spacing should be between 60m and 80m apart (based on a 1.6m cushion). The minimum gap between the kerb and cushion should be 750mm, though 1m is preferred in order to contribute to the development of a cycle friendly environment. Cushions should not be solely relied upon to enforce a 20mph zone.

Rumble devices - these cause vibrations and noise changes to alert drivers to a change in driving environment. They should not be used on their own, but can be effective as a gateway treatment into a new area. Devices may be up to 15mm high, but no vertical face should exceed 6mm, to avoid difficulties for two wheeled vehicles. If they are not designed to cover all traffic lanes, care should be taken to ensure that vehicles are unlikely to try and swerve to avoid them. A gap of 750mm-1m should be maintained between the device and the kerb. It is important that they should be highly visible and reflective, but not white so that they are not mistaken for white lines. In some locations, rumble strips may be inappropriate due to noise.

9.30 When considering these options the issues outlined for buses in chapter 8 should also be considered.

Traffic Control Orders

9.31 Speed, parking and loading issues need to be supported by the presence of traffic control orders and the appropriate on site signing and lining in order to be enforceable and to help support other suggested methods of complying with policy TD1.5. Issues surrounding this should be discussed with the Council to ensure that new traffic markings are enforceable when the new development comes into use.

Road Signs

9.32 Traffic signs are a necessary part of the highway to warn road users of potential hazards, to order drivers to act in a certain way, to give directions and to advise of certain regulations and to help support other suggested methods of complying with policy TD1.5.. Signs should not create unnecessary street clutter or block important views that give character to an area. Care should be taken that the location of signs, especially the view of the back of signs, does not create a visual blight. Signs should be located so that they do not interfere with visibility splays or create a vehicle or pedestrian obstruction. As well as the placement of new signs the removal of defunct signs and posts must also be considered. Where a sign is suspended over a footway or pedestrian area, a minimum clearance of 2.45m is required.

9.33 Where illuminated signs are provided they should be in line with the current Council guidelines for ease of maintenance and consistence in the event that the Council adopts them. Care should be taken in placing them, so that they do not shine into nearby windows to the detriment

of residential amenity. Consideration should also be given to the use of sustainable power sources, whilst remaining mindful of replacement or repair costs.

9.34 All traffic signs should be of the size, colour and type as prescribed by the Secretary of State for the Transport as indicated in The Traffic Signs Regulations and General Directions 2002 and all subsequent amendments.

Further Information and Help:

The Traffic Signs Regulations and General Directions, 2002, Department for Transport, at www.opsi.gov.uk

Sustainable Design and Construction Supplementary Planning Document, 2006, Stockport, at www.stockport.gov.uk

Design Manual for Roads and Bridges, 1997, Highways Agency, at www.standardsforhighways.co.uk/dmrb/index.htm

Manual for Streets, 2007, Communities and Local Government, Department for Transport, at www.dft.gov.uk/pgr/sustainable/manforstreets

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Freight

ST2.5 FREIGHT TRANSPORT

Development proposals likely to generate significant freight movement will be permitted provided that:

- wherever possible they make use of rail, water or pipe borne freight movement services;
- they are located on or close to the Strategic Road Network, or linked to it by roads capable of accommodating large-scale freight movement;
- the impact of the proposal has been assessed and is considered acceptable in terms of the principles of sustainable distribution; and
- the proposal can be accommodated without unacceptable impact on amenity.

Proposals for overnight parking of heavy lorries and coaches which are unable to return to distant bases will be permitted in appropriate locations provided that they:

- are not detrimental to the amenity of any residential area; and
- have good access to the Strategic Road Network

ST2.1 STRATEGIC ROAD NETWORK

The Council will maintain and develop a Strategic Road Network that is able to carry substantial flows of through traffic and freight with minimal impact on the Borough's residential and retail areas, while allowing for a choice of modes of passenger transport along these routes. Wherever possible, developments will be required to make use of rail freight as an alternative to road freight.

9.35 The movement of freight on a regional, national or international basis is vital to support the economy. Therefore introducing ways of ensuring the movement of freight is undertaken in the most efficient and effective way have to be identified and implemented. However, this has to be balanced with the impact freight movement can have on the environment where areas of concern include access, deliveries, and parking as can be seen in policy ST2.1 by the desire to direct freight to the strategic road network and in policy ST 2.5.. The freight industry also needs to consider modal shift, the introduction of alternative fuels and cleaner engines.

9.36 The Greater Manchester Freight Strategy sets out how it will achieve the following:

- An increasingly efficient freight movement for the economy
- Reduction the environmental impact and in severance effect that freight can have on some communities
- Proactively removing freight from road to rail as an example

9.37 The Stockport Freight Action Plan takes forward these aims and applies them to the borough. Stockport Council is part of the sub-regional Greater Manchester Freight quality Partnership, and also actions improvements related to freight using capital monies received through the Local

Transport Plan process. It can also action improvements with resources including staff time and maintenance costs.

9.38 The council receives a large number of complaints about heavy goods vehicles (HGV's), the majority of which concern the use of 'unsuitable roads' as short cuts. Therefore a number of measures can be used to limit the impact HGV's have on the surrounding environment and cause concern to local residents.

Considered possibilities to use other modes

9.39 The national policy on freight is set out in the Government White Paper ' Future of Transport: A Network for 2030' and highlights the importance of transporting freight in a efficient flexible manner while balancing this with reducing the affect freight movement has on congestion and the environment. The paper encourages the use of rail and water to carry freight with funding provided to support changes in mode as does policy ST2.5**.** More recently there has been a strong emphasis of the promotion of more efficient road haulage including more fuel efficient as well as vehicles that run on alternative fuels and quieter vehicles.

9.40 The Stockport Freight Action Plan aims to identify and implement road, rail waterway management schemes and improvements on the network to tackle the delay problems identified. For rail this should include network capacity and loading gauge improvements, as well as the provision of diversionary routes which will maintain satisfactory reliability in the event of accidents or engineering blockades, this could take the form of promoting and supporting certain rail schemes

Freight Network

Road signage

9.41 The impact HGV drivers can have when they are lost or unsure of the route to a specific location can be significant on the surrounding environment. They may cause disruption to the flow of traffic, cause damage to road furniture or kerbs when vehicles undertake U turn or similar manoeuvres leading to an increase risks in road safety terms. The needs of policy ST2.5 bullet point (iv) makes signs useful in this context.

9.42 The Stockport Freight Action Plan will ensure that the recent primary network re-signing continues to meet industry and environmental needs. The provision of up-to-date & consistent directional signage can make a significant contribution to the safe & efficient operation of the road network. By providing better signage/delivery information it may reduce delivery times, which will have a knock on effect of reducing costs, cutting pollution & disturbance by reducing unnecessary mileage. A Greater Manchester freight map has been produced which provides drivers with information on the road freight network for the area, motorways, primary routes and other classified routes, freight origins and destinations and also other general advice such as access restriction in a number of town centres within Greater Manchester, making deliveries to Manchester Airport, fuel saving tips and ways of improving air quality.

9.43 Developers which are expecting to have deliveries will be required to provide clear signage to their development via streets that are suitable for this purpose, clearly named streets to ensure

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that drivers can identify their current location. This will assist drivers to keep to the identified routes and reduce the possibility of disturbance being caused to surrounding areas.

Effective management of deliveries

9.44 It is important to maintain a balance between the needs of providing the freight industry with access for delivery vehicles while maintaining and improving the environment of the town centre as well of the district centres within the borough this is reflected in policy ST2.5 (iv).

9.45 At present access restrictions by vehicle weights or by type can be introduced to protect the urban environment and also to provide addition protection to people. However such restriction can mean that certain retailers may not wish to locate their premises in areas where such restrictions are in place.

9.46 A number of retailers have argued that less restricted policies means sustainable economic benefit for companies delivering in urban areas.

9.47 Therefore the right balance between allowing freight access to commercial sites while ensuring a safe and pleasant environment for local residents needs to be found.

9.48 The best way of achieving the right balance is at the planning stage, by building in purpose built service areas or by providing a small number of dedicated loading bays in certain locations.

9.49 In additional to these measures commercial retail and leisure facilities will be encouraged to undertake deliveries of goods at the rear of their premises, where possible. This will ensure that goods can be loaded / unloaded in a safe, unobstructed and controlled environment away from the main retail frontages, pedestrians, cyclist and other road users.

Night time deliveries by lorry

9.50 As previously stated time restriction can have a major impact on efficient deliveries. By relaxing restrictions and allowing night time deliveries in certain sectors a number of benefits (listed below) can be achieved as long as there is no adverse affect on the local environment or local residents.

- Reducing roads congestion by removing Lorries from peak day time operation. (Also providing a better shopping environment)
- Improving road safety
- Improving air quality by removing the stop/start nature of lorries operating in congestion

9.51 See Freight Parking for further guidance.

Further Information and Help:

Government White Paper Future of Transport, A network for 2030, 2004 , DfT at http://www.dft.gov.uk/about/strategy/whitepapers/fot/thefutureoftransportwhitepap5710

Greater Manchester Freight Map at www.gmltp.co.uk/freight.asp

10 Parking

TD1.4 PARKING IN DEVELOPMENTS

Development should provide appropriate car parking which does not exceed, and cycle parking of at least, the standard levels set out in Appendix 9 of this plan (or the standards most recently adopted in a Supplementary Planning Document by the Council) and in line with the transport assessment for the site, in order to minimise unnecessary car travel to the site. Parking areas should provide high standards of highway safety and should not harm the amenity of neighbouring residents. Measures should be taken, in line with other policies in this chapter, to encourage sustainable travel to sites.

ST2.4 ACCESS AND PARKING IN DISTRICT AND LOCAL CENTRES

In considering development proposals within District and Local Centre shopping areas, the Council will have regard to whether or not they are well served by all modes of transport, in line with the user hierarchy in UDP Policy ST2.3, and whether or not they provide enhanced facilities for pedestrians, cyclists and mobility-impaired shoppers, together with access to frequent, high quality public transport services. Development which does not make adequate provision in these regards will not be permitted. The Council will require that parking provision in the District and Local Centres is designed to meet the needs of the local communities, while at the same time minimising the impact of traffic on the pedestrian, cyclist and public transport passenger environment of their primarily local catchment areas.

Other Policies referenced within chapter include:

ST1Sustainable Transport

ST1.5 Cycling

ST2.3 Road User Hierarchy

ST2.5 Freight Transport

TD1.6 Accessibility and the Design of Development

10.1 The UDP includes a range of policies that could impact on parking the two main ones are shown above. These guidelines are not intended to be definitive and so should be regarded as a starting point and used in coalition with the parking standards and with other information and advice from the appropriate council officers in order to create the most satisfactory solution in regards to individual development.

10.2 General consideration to be taken into account when considering car parking includes:

- **Disabled Access** – see Disabled Parking
- **Pedestrian Access** – Clearly defined, direct, well lit footpaths with clearly marked crossing points to minimise the needs to walk between parked vehicles.

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- **Cycle Access** – where cyclists have to pass through car parking areas safe routes to do so which are direct, well lit and have clearly marked if appropriate should be included. See also Cycle Parking.
- **Speed** – speed reduction methods should be implemented improve safety for users.
- **Security** – the security of the site both for users and property should be considered in the design phase. Considerations should include natural surveillance, CCTV, and planting regimes
- **Safety** – Adequate space for sight lines, turning, and manoeuvring must be provided in addition to the parking spaces. The spaces should be 2.4 x 4.8 meters rising to 6 meters when spaces are for parallel parking.
- **Delivery needs** – parking for delivery and freight traffic should be separate from general parking. All parking should be separate from loading areas.
- **Environmental Effects -**Pollution control needs to be incorporated in parking design. The use of oil interceptors and trapped gullies for example. Adequate draining must also be provided to reduce the chances of flash flooding in the area (see EP 1.3 Control of Pollution).

Further Information and Help:

Further information on national and local parking policy can be found below:

Planning Policy Guidance 13, Department for Communities and Local Government, 2001: www.communities.gov.uk/pub/138/PlanningPolicyGuidance13Transport_id1507138.pdf

Transportation and Highways in Residential Areas Supplementary Planning Document, Stockport Metropolitan Borough Council, 2006: www.stockport.gov.uk/spd

Parking Standards

10.3 The maximum and minimum parking requirements for general, disabled, cycle and motorbike/ powered two wheeler parking have been stipulated in the parking standards in appendix 9 of the UDP Review. However, the parking needs of other users also need to be considered. Users such as freight hauliers or coaches that may need to access certain new developments in greater numbers will require particular types of parking facilities in order to reduce issues caused by parking in inappropriate or unsafe places (See ST2.5). The sections below give general advice on providing suitable parking infrastructure for specialist groups.

Disabled Parking

General principles

10.4 The Disability Discrimination Act 1995 places an obligation on any service provider to take reasonable steps to ensure accessibility to its services by disabled people. This obligation covers access arrangements from the boundary of the site, or the setting down point, to the entrance of the building or facility. For new developments or alterations to existing developments where conventional parking facilities are to be provided it is therefore crucial that any development makes adequate provision for employees and/or visitors with mobility difficulties for whom there is often no alternative to the private car, whether as a driver or a passenger.

10.5 Policies ST2.3 (Road User Hierarchy) and ST2.4 (Access and Parking in District and Local Centres) both make reference to the need to make provision for people with mobility difficulties, whilst Policy TD1.4 (Parking in Developments) and the accompanying Parking Standards in Appendix 9 set out minimum levels of provision of disabled parking in different types of development.

10.6 This section will briefly summarise some of the key issues that need to be considered in relation to provision of parking for disabled people. However, reference must always be made to BS8300:2001 Design of buildings and their approaches to meet the needs of disabled people. Code of practice and to Part M of the Building Regulations (2001:2004 Edition).

10.7 There are obviously many instances in which the applicant will need to consider the best way in which these standards for car parking and setting down can be met given constraints inherent within the site. In all instances the physical and procedural arrangements for disabled people to access the development must be described and justified in the Access Statement.

Key Considerations

10.8 In addition to the minimum levels of provision as set out in Appendix 9 of the UDP, the following issues must be considered in relation to parking provision:

1. Vehicular restrictions between the site entrance and the parking bays
2. Location of the parking bays in relation to the main entrance to the facility
3. Other physical obstacles between the bays and the entrance
4. Signing to and from the parking bays and other information for disabled drivers or passengers
5. The dimensions of the parking bays
6. Access to ticket machines in pay and display car parks

1. **Vehicular restrictions between the site entrance and the parking bays**
   Many disabled drivers may have adaptations to their vehicles such as wheelchair roof boxes. As far as possible these need to be taken into account should there be a need to install height barriers. BS8300:2001 recommends a minimum height of 2.6 metres for restriction barriers, although, where lower height barriers are necessary consideration should be given to making alternative facilities available on site, or ensuring that a suitable entrance point is readily accessible from nearby blue badge parking off site.

2. **Location of the parking bays in relation to the main entrance to the facility**
   Parking bays for disabled people should be located at the closest suitable point to an accessible entrance to the facility. In any instance the bays should be no more than 50 metres from an accessible entrance (which is considered the maximum distance for people with walking difficulties). As above, where parking facilities are not possible on site consideration should be given to providing an entrance that is accessible from within 50 metres of a blue badge bay off site. Alternatively a drop off point should be considered where it is on level ground and close to an accessible entrance. In multi-storey car parks the parking provision for disabled people should on the same level as the pedestrian access point to the facility, or where this is not possible a lift should be provided nearby that is suitable for wheelchair users.

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3. **Physical obstacles between the bays and the entrance to the facility**
Steep gradients often present challenges for designing access arrangements, and this is particularly so in Stockport. As far as possible the route from the bay to the entrance should be level. Where this is not possible a ramp should be installed to enable the lowest practical gradient. BS8300 provides details on the limits to the length, height and gradient of different options for ramps.

Dropped kerbs with tactile paving should be provided at any crossing points on the way to the entrance to the facility. Where footways are level with the carriageway there should also be tactile paving provided to demarcate them. providing an indication of the route and so guiding visually impaired people on junctions and indicating any deviations in direction in the route. See guidance tactiles in the Build Standards section of the Walking Chapter.

4. **Signing to and from the parking bays**
Signs should be provided to direct drivers to the designated bays. Where the route to the entrance is not immediately obvious signing should also be provided accordingly.

5. **Dimensions of the parking bays**
It is essential that parking bays are of an appropriate size to enable people to operate wheelchair lifts or other equipment from the side or the rear of the vehicle. The required dimensions for are provided in BS 8300.

Bays should be marked clearly with a wheelchair symbol and if the car park is not under cover a raised sign should be placed at the head of the bay as surface markings may be obscured by snow fall or leaf litter.

6. **Parking control equipment**
If disabled drivers are to be subject to parking charges information to this effect should be clearly displayed before the entrance to the car park along with details of the charging system.

Pay machines, and in particular the height of the coin or card slots and buttons, should conform to BS 8300. Any concrete plinths at the base of the machine should not extend out beyond the face of the machine and there should be adequate clear space to enable wheelchair users to manoeuvre in front of the machine.

If barrier control units are to be installed these should conform to BS 6571. If disabled parking is to be provided free of charge alongside a barrier control system, designated bays should as far as possible be placed outside of the barrier control area. If this is not possible then

there should be clear instructions to blue badge holders as to appropriate arrangements for exiting the car park.

Further Information and Help:

Inclusive Mobility, A guide to best practice on access to Pedestrians and transport infrastructure, Department for Transport, at:
http://www.dft.gov.uk/transportforyou/access/tipws/inclusivemobility

Guidance on the use of Tactile Paving Surfaces, 1998, Department for Transport, at:
www.dft.gov.uk/transportforyou/access/tipws/ guidanceontheuseoftactilepav6167

BS8300 Design of buildings and their approaches to meet the needs of disabled people. Code of practice, 2001, British Standard Institute

Building Regulation Approved Document M - Access to and Use of Buildings, at www.planningportal.gov.uk

Design Access Statements: How to write, read and use them, 2007, CABE, at www.cabe.org.uk

BS 6571 Vehicle parking control equipment. Specification for barrier type parking control equipment, 1987 British Standards Institute.

Bicycle Long and Short Stay Parking

10.9 In line with policies ST1.5, TD1.4 the parking standards and to support ST1 in ensuring accessibility by cycling developers will be expected to demonstrate that excellent cycle parking facilities are to be provided. Some earlier provisions of cycle parking have been handicapped through being 'add ons': It is fundamental that the default location of cycle parking is not 'left over space' once other elements of a development have been proposed. Several contemporary sources relating to cycle parking standards exist which are applicable to all types of development [see Box below].

10.10 In designing cycle parking the following should be considered:

- Is it overseen and close to a building's entrance? Being visible to passers by increases the level of security of the parking.

- Will cycle parking be provided at only one location within the site or scattered throughout the site? A 'scattered' approach is likely to be more successful in reducing other 'informal' cycle parking through the use of street furniture and is less vulnerable to changes of use of different parts of a development but would not be suitable for all development sites.
- Is it short or long - term parking? - For short - term parking, an absolute minimum will be the provision of 'Sheffield stands', and preferably if feasible covering from the elements either via a dedicated shelter or utilisation of a canopy incorporated into the main structure. Long term parking will provide more 'levels' of security, which will normally consist of stands within a compound integral to the main structure of a development.

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- Is the parking easy to locate? Clear signage both directional to the site and on the site of the parking itself will enable the cycle parking to be found easily.
- Does the site feel secure to use? Good levels of lighting will encourage use at different times of day and CCTV cameras maybe appropriate in some locations, especially when parking is in long term use.

10.11 There is a prevalence of guidance on 'how not to do it', with a particular emphasis on types of infrastructure to be avoided. Typically, infrastructure to be avoided may only lock part of the bike, usually the front wheel, and is likely to lead either to damage of the bike, or most of it being stolen.

10.12 Early examples of successful short - term cycle parking in Stockport are to be found at Sainsbury's, Hazel Grove and Pizza Hut, Portwood. Hi-tech secure long-term cycle parking is proposed for the new Stockport Academy.

Further Information Help:

Cycling England at http://www.cyclingengland.co.uk/documents/C.04.pdf

Transport for London at
http://www.tfl.gov.uk/assets/downloads/businessandpartners/lcds_chapter8.pdf

A new edition of the **IHT's 'Cycle Friendly infrastructure'** is pending see
http://www.iht.org.uk/publications/technical/cyclefriendly.asp

Powered Two Wheeler Parking

The last ten years have seen a resurgence in the ownership of motorcycles, scooters and mopeds, with increases in registrations of over 200% since 1993. This implies a corresponding growth in use and demand for facilities, including parking. Legal parking locations can reduce issues surrounding informal parking for other users such as pedestrians and cyclists and improve the parking opportunities for powered two wheeler users in line with the policies ST 2.3, ST 2.4 and TD1.4. Central Government guidance on the preparation of Second Local Transport Plans requires Local Authorities to consider specific measures to assist motorcyclists in making integrated journeys, including the provision of secure parking at public transport interchanges.

In order to prevent informal parking by motorcycle users, designated motorcycle parking should be concentrated at key sites close to main trip attractors so as to maximise usage and create a critical mass to reassure motorcyclists that sites are secure.

10.13 In designing motorcycle parking, the following guidelines should be followed:

- A space per bike of 1.5 X 2.8 meters minimum with sufficient space for manoeuvrability.
- Clear signage – both directional and clear signs and markings at the parking site.
- Placement to not cause trip hazards or obstructions to other users both when in and out of use.

- Parking spaces should be covered especially where medium to long stay parking is expected.
- Anchor points – 60cm above the ground as this allows for the securing of a range of wheel sizes. Sheffield stands for cycles are not suitable for motorcycle parking.
- Good levels of lighting.
- Visible to passers-by to increase security and where appropriate covered by CCTV cameras.
- Facilities for regular users such as lockers for equipment and showers should be considered where appropriate.
- Well drained sites
- Surfaces should, as far as is practical, have no, or only a slight gradient
- A non-slip surface should be provided, as oil spills can represent a hazard to users
- Close proximity to uncontrolled carriageway crossings should be avoided, as people in wheelchairs may have difficulty seeing past densely parked motorcycles
- Drain covers should be avoided in order to limit the possibility of the loss of important bike components and keys.

10.14 Where motorcycles are likely to be parked for an extended length of time, additional consideration should be given to the importance of security and covered locations. Options such as CCTV, security personal and secure cage/ garage options should be investigated.

F urther information and Help:

Traffic Advisory Leaflet 2/02 Motorcycle Parking, Department for Transport, http://www.dft.gov.uk/pgr/roads/tpm/tal/parkingmatters/motorcycleparking

Freight Parking

10.15 Freight parking as covered in policy ST2.5 is permitted where it will not be of detriment to the amenity of any residential area and has good access to the Strategic Route Network. Freight parking has increased in importance due to the new controls on driver hours. Therefore any development which is likely to result in an increase in freight traffic should give consideration to the need to improve freight parking facilities. Parking for freight will not be allowed on residential streets.

10.16 Issues for consideration include:

- Lay-bys on estate roads to avoid obstructions.
- The need to separate parking and loading areas.
- Facilities for drivers.
- Clear signage of hazards, restrictions and directions to parking in line with national regulations and guidance.
- Proximity of parking to freight routes.
- Pedestrian safety.
- Driver and vehicles security – currently drivers prefer to use busy areas as they have a higher level of natural surveillance.

10 Parking

Driver rest facilities & lorry parking

10.17 Such facilities provide a vital role in freight operations due to drivers having to take daily break and over night rests according to the EU Driver Hour Directive 3820/85. As well as the health, safety and welfare of drivers, inadequate lorry parking provision can have an adverse impact upon other road users through road safety issues, and poor security can put cargoes at risk.

10.18 Well placed and well designed lorry parks can reduce the mileage run by visiting lorries, promoting driver well being leading to more efficient and effective deliveries and minimising disruption to local communities rather than have lorries parked in lay-bys or on minor roads, also by providing drivers with food and proper rest facilities is can contribute to a general improvement in road safety and lorry parks need to be adequately signposted and easily accessible off the freight network for them to be used.

10.19 It is proposed that a Greater Manchester survey of current driver rest facilities and lorry parking will be undertaken to identify what provision are provided in the area. Currently the provision of such facilities by local authorities has been difficult to fund, and the private sector has not yet brought any schemes to fruition therefore by identifying and prioritising through the scheme may assist in the provision of such facilities.

Coach Parking

Coaches as a method of transportation are encouraged within the borough. They are comparable with buses as efficient users of road space and they provide both operators and passengers with flexibility in routing and in the selection of origin and destination points. Coaches play a significant role in the provision of long-distance travel and, to a lesser extent travel within the region, commuter services and in the provision of transport for specific groups such as people with mobility difficulties and educational parties. Coaches also play a major role in supporting the tourism industry, partly because they are a relatively cheap way to travel, but also because they are a convenient way of moving coherent groups and of keeping these groups together and under control.

10.20 As coaches have a recognised part in the transport of groups of people there is a need to address the issues surrounding coach parking. Therefore, any new or expanding visitor attractions, hotels, leisure facilities, schools and crematoria being developed in the area will need to give consideration to the provision of parking for coaches containing visitors in line with policies TD 1.6 and ST 2.5. This consideration should include:

- the need for safe drop off points for visitors
- medium and/or long stay coach parking depending on the type development.
- coach parking locations which are not likely to endanger other vehicular users, pedestrians or cyclists
- facilities for continental coaches where they can set down and pick up on the right hand side
- the need to be designed and managed so that it cannot be used as car parking

Long-stay facilities also need to consider the following:

- the need for easy access for passengers to key destinations
- good linkages with strategic public transport network
- the need for close proximity to short stay parking
- the need for a convenient access to the primary road network
- the need for security, good signage and, where possible, driver facilities

Further guidance will be given on a case by case basis.

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TD2 URBAN DESIGN AND STREETSCAPE

The council will carry out works and control development in order to ensure a high standard of design and use of construction materials within the streetscape. New development should maintain and enhance those parts of the road network with a green, visually attractive or peaceful character, and should seek to improve the roadside environment for walkers and cyclists, as well as residential occupiers, in the designated homezones and quiet lanes, as well as in heavily trafficked or degraded areas.

Other Policies referenced within chapter include:

TD2.3 Design of Highway and Transport Schemes

DCD1.1 Design Principles

DCD1.2 Design Appraisal

DCD1.4 Landscaping and New Development

DCD1.6 Public Health Safety and Security in Development

NE1 Biodiversity and Nature Conservation

NE2.1 Tree and Woodland Protection

11.1 A good quality streetscape has been identified as a key element in the development of a sustainable community as a high quality street design encourages sustainable transport and also supports policy DCD1.1. An attractive well connected permeable street network encourages more people to walk or cycle to local destinations improving health, reducing motorised traffic, energy use and pollution in an area. The increased pedestrian and cyclist numbers leads to improved personal security and safer roads. Pedestrians on a street have been proven to reduce vehicle speeds. A sense of community is also strengthened by these modes of transport as they allow for greater interaction among the population of an area. The higher the quality of the streetscape involved the more pride that is likely to be taken in the local area environment which will impact on incidence of crime, vandalism and other issues that can lead to higher maintenance costs and lower rental and sale prices.

11.2 As a result of this it is expected that development proposals will contribute to the local distinctiveness of an area. This would be done by the good design and build quality of the highway, highway lighting, street furniture and soft landscape of a proposed development.

Quality Public Realm

11.3 While the council desires a high quality public realm design and build in all areas of the borough there are three areas that must receive special consideration. These are:

- The Town Centre
- Conservation Areas
- District and Local Centres

The Town Centre

11.4 In line with policies TD2.3 and DCD 1.2 and in conjunction with the information within this SPD direction for the streetscape in the town centre should also be taken from the information in the Future Stockport Town Centre Master Plan SPD and the Public Realm Strategy for Stockport Town Centre. These will provide guidance on: Design themes, Gateway projects, The Town Centre, Key Streets and Linkages, Key Town Spaces, Design Guidance (Materials).

Historical/Conservation areas

11.5 Historical/Conservation areas (including listed buildings, scheduled monuments and registered parks and gardens or their settings) will require the careful selection and sourcing of materials. A balance will also be needed of vulnerable users and the maintenance and enhancement of streetscapes. Advice on specific schemes should be discussed with the council's conservation officer. Appraisals of Conservation areas have taken place and will help to inform developers of the council's intentions towards these areas. It is expected that measures will be planned to protect and enhance historic assets in their setting. Consideration should be given to the possible effects of traffic increases, congestion, air quality, noise pollution and other issues on the historic environment and people's enjoyment of it and actions taken to reduce or remove such effects. Policies relating to Heritage and Conservation can be found in Chapter 4 of the UDP and should be consulted when addressing the needs of policies TD2 and DCD 1.2 in these cases.

District and Local Areas

11.6 District and Local Centres will also already have a distinctive character in terms of their streetscape which should be respected by proposed designs developed. The aspects that should be considered may include: hard landscaping materials, colours, street furniture design, signage and lighting styles. These will enable a unified street space and create an attractive place for people to live and encourage use.

11.7 Advice on residential and mixed use development areas has been given in the Transport and Highways Residential Areas Design Guide SPD.

Colour and Materials

11.8 As well as considering and planning for the proposed development to be in keeping with the surrounding area with regard to policies TD2 and TD2.3 thought should also be given to creating a sense of place. This is normally best accomplished using a small selection of colours and materials with simple patterns and layouts. More elaborate design may be used if there is a gateway feature incorporated into design to indicate he entrance to an area or a change in place. The need for the use of contrasting colours to indicate obstacles to people with visual impairment should be considered when planning the use of colours and materials.

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11.9 Sustainability of the materials used should be considered in terms of sourcing local produce, the possible use of recycled or reclaimed materials where appropriate and the whole life costs of the materials that are used.

11.10 The table below shows a selection of materials and areas of suggested possible use which could be considered for a guideline.

Type of Material	Type of Area
Modular flags **Natural Stone flags** **Sett paving** **Block Paving**	*Town Centre- Core Retail and Historic Centres*.
	District Centre, Local Centre, Neighbourhood Centre, and *Pedestrian Areas/Precincts*.
	Conservation Areas – unless specific instructions state otherwise
	Historic areas – replace with like for like surfacing i.e. Natural Stone
	Quality Bus Corridor Bus Stops
Modular flags **Natural Stone flags** **Sett paving** **Block Paving** **Flexible Surfacing** - bituminous surfacing options, such as dense bituminous, mastic asphalt, hot rolled asphalt etc	*Key Walking Routes* and *20 mile per hour zones* and *Aesthetic walking routes*.
	Homezones as to reflect the previous surfacing.
	Footways not adjacent to the Highway and over 2400mm
Flexible Surfacing - bituminous surfacing options, such as dense bituminous, mastic asphalt, hot rolled asphalt etc	*Industrial Areas*
	Footway not adjacent to the Highway under 2400mm wide
	Car Parks
	Shared use cycle path
	Other areas less than 2400mm wide

Table 2 Surfacing Guidance

11.11 Surfacing should be done in line with the specifications set out in the Highway Design Standard Details with reference to the surfacing used in the adjoining roads, substructure conditions and the expected usage of the road. Consideration should also be given to the possible effects of climate change on the condition of the roads substructure and relevant actions considered.

11.12 The Council also has Highway Design Standard Details related to a number of other road details which must be adhered too.

Footways and Footpaths

11.13 The surface of the footways can have a significant impact on the visual appeal of an area. It is important that due consideration is given to this important impact of footway surfacing, particularly in areas where aesthetically pertinent - for example conservation areas.

11.14 Paved surfaces are generally considered more aesthetically pleasing than bituminous surfaces. However, consideration should also be given to how the surface will appear when it has been used for a number of years. A flagged footway which is subject to regular vehicular overrun may quickly become uneven and cracked, and this is likely to appear less pleasant than the original, newly laid flags. This will also cause issues in regards to DDA standards.

11.15 Bituminous surfaces are more resistant to breaking up due to vehicle overrun but also become less aesthetically pleasing over time as the colour and quality of the replacement surface used by utility companies can be expected to be different from that initially laid.

11.16 Consideration should also be given to the need to mechanically clean the surface, this is related to the placing of street furniture as well as the nature of the surface of the footway. If an area can not be successfully cleaned on a regular basis then the footway will rapidly lose its appeal.

11.17 Public Rights of Ways can require consideration of specialist users and surfacing which is more sympathetic to the surrounding environment. Clarification on these issues should be sought from the Rights of Way Officers in the Sustainable Transport Team on a case by case basis.

Cycle Paths

11.18 The surface of cycle infrastructure should also be considered carefully when developing a scheme. A clearly identified smooth running surface with clear and non slippery tactile to aid visually impaired users is needed. It is necessary to strike a balance between the clear marking of cycling infrastructure and the creation of a confusing eyesore. This is especially important in areas such as conservation areas where the use of muted colours and a minimum use of signing and lining are normally preferred. Advice from the cycling officer should be sought with regard to infrastructure issues.

Carriageway Surfacing

11.19 In areas where the council is expected to adopt carriageway routes the building quality must meet the Council standards. Build quality will also be required to reflect the level of road use to ensure a suitable life expectancy. Road marking and surfacing will need to be carefully considered in conservation areas in order to maintain the aesthetics of the area.

Drainage

11.20 The issues surrounding the changing climate and the likelihood of increased rainfall must be considered in the development of new transport infrastructure and adequate drainage for this

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increase be provided. The use of permeable surfacing within a development such as soft landscaping areas will also assist in drainage issues by reducing runoff.

Soft Landscaping

11.21 To ensure a development to be attractive and fits well into its surroundings landscaping can be used to give character and define the space that has the highway within it. This can make the highway itself a more pleasant environment to be in and so assist in meeting policy TD2.

11.22 The benefits of planting along roadsides and in urban areas are widely recognised. Planting within the highway can be especially valuable for defining footways, footpaths and cycle paths, enhancing visual amenity in speed management measures, and improving the appearance of visibility zones, with care being taken to prevent routes from being obstructed by overplanting or poorly maintained planting.

11.23 This section gives guidance for the use of landscaping within or adjoining the highway. It should not be read as a comprehensive guide to landscape design; it is recommended that developers seek the advice of a qualified landscape designer / landscape architect.

11.24 Landscape considerations should be discussed with the Council and agreed at the earliest possible stage in the development process, i.e. preferably at the design brief stage. Developers are responsible for creating an acceptable scheme not Stockport Council.

11.25 Any planting within the highway should be an integral part of the overall landscape scheme for the development. This is so that adequate provision for its implementation and maintenance can be arranged, constraints such as service routes can be organised to allow the landscape scheme the fullest possible scope, the interests of all road users can be met, and so that the landscape scheme can be designed alongside the layout design, street furniture, lighting and signage in the development. Where the development is close to an established development, or open countryside, landscaping should integrate the new development within the area, taking advantage of existing contours or features to create new landscape features and by choosing plant material appropriately.

11.26 As part of the landscaping scheme to meet policy DCD1.4 requirement (iv), the developer should provide:

- A brief setting down the principles and aims of the scheme, for the whole site;
- Assessment of adjacent development;
- Details of, or changes to, site topography;
- Existing landscaping features with details of how these are to be used or reasons for removal;
- Verge, tree and shrub specifications for the development, its location, its design and local factors;
- Botanical (Latin) names of all plants to be used on the scheme, showing both the species and the genera, e.g. Cotoneaster dammeri and the number planted in each group;

- Size of plants, showing evidence of planning for the eventual size and shape of shrubs, hedges and trees;
- Planting density (number of plants per square metre) making sure that adequate growth space is allowed (design stage space allocation to be mature spread), this could be accomplished through thinning plants as they mature so that the initial bedding looks less sparse ;
- Planting materials such as mulching, stakes, canes, shelters and other materials intended to aid establishment including specification notes;
- A comprehensive soil survey showing relationship to the choice of plants;
- A full schedule of works demonstrating the pre- and post- planting works that will be carried out;
- A viable and detailed maintenance management plan; and
- The highway limit.

11.27 Care should be taken, in line with DCD1.6, not to obstruct visibility for vehicles and pedestrians either at the time of planting or following reasonable growth of trees or shrubs. In particular any hedge or intended hedge should be positioned at least 1 metre to the rear of any junction or forward visibility splay to allow for growth without obstruction of the splay. Where hedge are planted to the rear of a footway they need to be planted with a centre line a minimum of 1m back from the rear of the footway. This helps avoid over-growing of the footway in the future and the consequent need to cut back or remove the hedge when this occurs.

11.28 Planting outside the adoptable highway margins will not normally be adopted; exceptions to this are where Stockport Parks and Recreation Service adopts the land or where existing trees close to the carriageway are retained. If tree planting occurs in verges, they will normally be adoptable, even though the combined width of the footway and tree planting will produce a margin in excess of 2m.

11.29 Responsibility for maintenance must be established at the planning application stage and this should be in private ownership wherever possible. Maintenance costs should be carefully calculated bearing in mind that as plants grow, there may be additional costs, and if inappropriate plants are grown in restrictive sites they may require constant pruning or even removal and replanting. For the establishment of trees, provision should be made for five years comprehensive aftercare and trees which die within this period must be replaced with trees of an equivalent size and species. A management plan for new planting and a commuted sum or ongoing maintenance regime should be put in place for at least 25 years.

11.30 To prevent future maintenance problems, considerations at the design stage include:

- Planting unsuitable species in narrow or awkwardly shaped spaces that would be difficult to maintain;

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- Ensuring that trees are not planted too close to pavements and underground services, to avoid damaging them;
- Avoiding species with dense foliage that may cause localised leaf fall problems (gutter and drain blockages);
- Avoiding species with invasive surface rooting and/or suckering that can cause damage to highways and highway structures; and
- Avoiding heavily fruiting trees such as crabapple that can attract wasps and make footways unattractive and slippery with squashed rotten fruit.
- Avoiding excessively steep grass banks above 17 degrees which can not be maintained safely with ride on mowing machinery.

Planting

11.31 Scale of planting needs to be appropriate to the site and building. For example, small shrub beds in larger developments can be visually ineffective and may be difficult to establish and maintain.

11.32 As well as creating a pleasing environment, plants may be used in the design to achieve the following aims:

- Providing areas of privacy;
- Softening the visual harshness of new development;
- Hiding unsightly features;
- Guiding pedestrians in suitable directions;
- Separating pedestrians and moving vehicles;
- Preventing access to certain areas if necessary; and
- Improving the visual appearance of areas where cars park.
- Introducing colour, texture, scent

11.33 Using salt for de-icing can cause damage to plants and soil alongside roads, footpaths and other pedestrian areas; irreversible harm to soil quality and plant communities can occur. Selecting plants that are tolerant to salt is important. Grass and evergreen species (conifers, in particular) can be damaged most when used as low ground cover adjacent to areas where salt is used. Even salt tolerant species are affected by long-term use of salt. Measures that could help to reduce damage from salt used on the roads in winter include:

- Shaping ground surfaces to encourage rapid and efficient run-off into a good drainage system;

- Providing good drainage in footways, footpaths and other pedestrian areas to remove salty water efficiently;
- Providing slush disposal zones next to planted areas with efficient drainage to remove salty water;
- Keeping salt dumps and bins away from trees and shrub beds;
- Ensuring that soil cover in planting areas is of good quality and free draining; and
- Protecting planting by using raised kerbs.

11.34 Policy NE1 Biodiversity and Nature Conservation and other policies in chapter 3 of the UDP are designed to protect areas of biodiversity, increase biodiversity and encourage tree cover in the borough. Special consideration should be given to transport infrastructure if it is near wildlife sites or sites where protected species are located to ensure that the implementation and use of new transport infrastructure does not adversely affect the sites.This issue is also covered in TD1 where it states that traffic should be routed away from environmentally sensitive sites. See chapters 3 and 4 of the UDP for details Further advice on these matters can be sought from the Councils Parks and Recreation Team.

11.35 Important existing features on a new development site should be retained to give the site maturity and provide links to the past (Policy NE 2.1). Developers are also encouraged to ensure that natural habitats, flora and fauna will not be harmed by proposed transport routes and infrastructure. Proper consideration should be given to the possibility of damage to protected species and the affects of disturbing flora and fauna at critical times of the year and mitigation undertaken. Where mature trees are kept tree roots should be kept intact across service trenches and no activity should be permitted beneath the crown of any mature tree.

11.36 It should be noted that the Council is required to act in line with Section 40 of the Natural Environment and Rural Communities Act and have a Duty to have regard to the conservation of biodiversity in exercising their functions. Conserving biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them. As part of this process the council would encourage developers to consider the possible beneficial work that could be done in terms of increasing biodiversity through the choice of planting used on a site

11.37 Where trees are accommodated alongside a road, the appearance of the area is improved, but this requires good design and precautionary measures to protect against root encroachment. Grass should also end 50cm from the base of the tree.

11.38 Special consideration should be given to the layout of services near trees. Where services are not properly laid or are installed it is possible for them to be damaged as the trees establish. Equally, where planting is disturbed during excavation for servicing, it may not restore in a satisfactory way. The use of root barriers to protect services and drainage runs should be considered where appropriate.

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11.39 The use of a variety of native British species should be used within the scheme, in line with policy DCD 1.4 explanatory text paragraph 1.35, to create a varied environment and reduce the risks associated with monoculture.

11.40 Species that should be avoided include:

- Plants known to cause structural damage;
- Plants known to have health implications;
- Species that bear large amounts of fruit; and
- Species which have poisonous fruits/berries.

11.41 Species that should be avoided along carriageways and cycle routes include:

- Trees that are especially attractive to children, for example, Horse Chestnut and Sweet Chestnut;
- Species that are brittle and are liable to shed branches; and
- Species with thorns liable to puncture cycle tyres.

11.42 Near car parking areas species that attract aphids, such as Lime and Maple should be avoided to prevent sticky spots occurring on cars.

11.43 **Security**

11.44 Reducing opportunities for crime, in line with policy DCD 1.6, should be a major factor in the landscape scheme. High-risk areas of shade or screening should be avoided, and appropriate co-ordination between the landscaping, the street lighting, the alignment of footpaths and cycle routes, and the location of car parking areas can create a sense of security.

11.45 Any vegetation adjacent to parking areas, bus stops, footpaths or highways should be planted and maintained to a maximum height of 1000mm and any foliage to trees should be at a

height exceeding 2000mm so as not to create potential hiding places for would-be criminals to exploit or impede natural surveillance.

Further Information and Help:

Future Stockport Town Centre Master Plan SPD, 2006, Stockport Council

Sustainable Design and Construction SPD, 2006, Stockport Council

Stockports Highways Design Standard Details can be obtained through the Engineering Consultancy Services. Section 38 Private Developer Sites can also obtain design standards through Engineering Consultancy Services.

Public Realm Strategy for Stockport Town Centre at www.stockport.gov.uk

Streets for All North West, 2005, English Heritage, at http://www.english-heritage.org.uk

Transport and the Historic Environment, at www.helm.org.uk

Manual for Streets, 2007, DfT and DCLG, at http://www.manualforstreets.org.uk

Street Furniture

11.46 A street should be more than just a corridor for travel from one place to another. The streetscene can add value to an area to make it attractive and a place where people want to be, rather than a space to pass through. Street furniture can aid interaction in the street, although careful regard needs to be given to its design and location to ensure that pedestrian routes are not obstructed, especially for vulnerable users, or that furniture, unless designed for the purpose, does not provide alternative parking for cyclists or motor cyclists. This is in line with policy TD2 in regards to improving the roadside environment for pedestrians, cyclists and residents. In conservation areas advice should be sought from the council conservation officers.

11.47 Street furniture includes:

- Street name plates;
- Directional Signs;
- Litter bins;
- Utility service cabinets;
- Play equipment;
- Bollards and other access control features;
- Seating;

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- Gateway features (including public art);
- Street lighting columns;
- Telephone boxes;
- Letterboxes;
- Lavatories;
- Cycle and Motorcycle parking;
- Pay and display machines; and
- Help points

11.48 Good practice for street furniture in Stockport is as follows:

- It is preferable to combine different street furniture elements together in groups and in accordance with inclusive mobility guidance For visually impaired people guidance and warning tactile should be included as advised by Guidance on the use of Tactile Paving Surfaces, 1998 and Inclusive Mobility, A guide to best practice on access to Pedestrians and transport infrastructure, 2005.;
- Careful design to minimise clutter should take place; railings, bollards and multiple sign and traffic control post should be avoided;
- Street furniture such as telephone boxes should be placed at the back of the footway;
- Street furniture should match or complement other street furniture in the area and reinforce and promote local distinctiveness;
- Seating should be placed to assist the mobility impaired inclusive mobility suggested seating at no more than 50 meter intervals;
- A balance should be made between siting litter bins close to seating to prevent litter being dropped and siting it far enough away to prevent the nuisance of wasps and unpleasant smells in warm weather for those using the seats;
- Seating should be away from windy and cold positions, and sensitive tree planting can be used to provide an element of shade;
- Ease of access and servicing must not be prejudiced by the siting of elements of street furniture;
- Street name plates and signs fixed to properties are less likely to suffer from vandalism than stand-alone signs in the street and they also reduce the need for posts;

- Business clutter from developments such as cafe outdoor seating should be avoided and the guidelines in the town centre cafe design guide applied where appropriate;
- Specifications must be carefully chosen to ensure that areas do not become a maintenance liability;
- Bollards should be positioned at suitable intervals and not be placed where they may cause a danger to cyclists or Motorcyclists;
- Colour at the top of bollards can be helpful for visually impaired persons, and a minimum height of 1m is preferred;
- Clear signage using consistent graphic language of lettering and symbols contributes to the good appearance of the street and to public safety;
- Pay and display and other parking controls should be planed with care. If possible they should be located together and at the back of the footway and provided in similar livery to other display points in the area;
- Litter bins should comply with the specification and positioning guidance within the litter bin management policy for Stockport;
- New units should be designed as part of a family of street furniture;
- Consideration should be given to anti vandalism features, and anti fly-posting features on street furniture to make the maintenance easier and increase life expectancy.

Further Sources of Information and Help:

Streets for All North West, 2005, English Heritage and DfT, at http://www.english-heritage.org.uk

Policy ES 01: Litter bin Management, 2007, Environmental Services, Stockport Council

12 Street Lighting

12 Street Lighting

Policies referenced within chapter include:

DCD1.1 Design and Design Principles

DCD1.6 Public Health, Safety and Security in Development

EP1.4 Light Pollution

12.1 Street lighting is important to illuminate the passage of people and vehicles it assists in meeting the needs of policy DCD1.6 on highway safety and minimising the risk of crime to persons and property. The planning of lighting in a new development should therefore be done with care with its planning and design being integrated into the planning process of the proposed scheme. This careful planning made lead to certain areas not being illuminated due to it not being in keeping with the surrounding area or that to do so would cause issues of light pollution and intrusion in line with policy EP1.4 see paragraph 12.24 light pollution and glare for further details.

12.2 The process of preparing a lighting scheme should begin with an assessment of the need for lighting. The reasons for preparing the scheme should be clear at the outset. Instead of automatically assuming that lighting is necessary, promoters of lighting schemes should carefully consider whether:

- the development could proceed without lighting;
- the benefits of lighting outweigh any disbenefits; and
- there are any alternatives to lighting.

12.3 It is expected that any lighting planned will be suitable to the task and planned as integral part of the scheme. All lighting schemes must satisfy the needs of Stockport Council as the areas highway authority.

12.4 Public realm lighting schemes must generally be:

- Suitable for integrating with existing schemes, infrastructure and architecture;
- Energy efficient;
- Low maintenance;
- Low light pollution;
- Vandal resistant;
- Planned to promote road user and pedestrian safety;
- Conducive to visual function;
- Create a pleasant atmosphere;
- Conducive to the deterrence of crime against people and property; and
- Electrically and mechanically safe.

12.5 Stockport Council provides a full design and installation service for new developments. Where requests are made to the Council for lighting design, a copy of the layout plan should be

submitted, in AutoCAD format, showing the location and type of existing street lights which are located on or adjacent to the site and the proposed electrical main location.

12.6 Street lighting shall be designed in accordance with the current edition of BS 5489/BS EN 13201 (or subsequent standards).

12.7 All luminaires and associated lighting equipment must generally be chosen on grounds of appearance, optical efficiency, running costs and maintenance characteristics. All luminaires and associated lighting equipment must be in accordance with the general policy requirements of Stockport Council as the Highways Authority as well as complying with BS5489, BS EN 13201 and BS EN 60598 (or subsequent standards).

12.8 Only equipment which is detailed in the Council's "List of Approved Street Lighting and Illuminated Traffic Sign Equipment" will normally be acceptable to the Council. This list is available from the Council on request and will be periodically updated to take account of new materials. The Council will give consideration to requests from developers for the use of alternative materials but no such materials or equipment shall be used until approval is given in writing by the Council's Engineers.

12.9 Side entry lanterns with curved tempered glass, giving an asymmetric distribution, are generally preferred to post-top lanterns for the lighting of predominantly linear spaces. In certain circumstances, however, the use of post-top lanterns will be considered.

12.10 All luminaires shall be to a minimum I.P. rating of 65 for optical chambers and 54 for gear enclosures and have integral gear.

12.11 Lighting Columns shall be to the requirements of the Department of the Environment as set out in Technical Memorandum BE4/72 (revised) 'Street Lighting Columns of Steel construction' and shall comply with BS 1840 and BS 5649 (or subsequent standards).

12.12 If columns are required to take any additional features (signs, banners, Christmas decorations etc), the weight and windage must be included for in the column design. No signs or banners will be considered unless written confirmation of this is provided from the manufacturer.

12.13 Bracket arms shall be so designed that when assembled with the column shaft the arm and spigot are at an angle of 5 degrees above the horizontal.

12.14 Bracket projections, unless otherwise specified, will be:

Column Height	Bracket Projections
5 m columns (when required) 0.3	0.5m
6m columns	0.75m
8m columns	1m
10m columns	1.5m

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Column Height	Bracket Projections
12m columns	1.5m

Table 3 Bracket Projections

12.15 Generally highway lighting columns and brackets are to be painted in accordance with the Authority's painting specification.

12.16 Highway lighting shall be planned using light sources mounted at a height to suit the individual scheme. Generally these will be 6 metres above ground level for Residential Roads, 8-10 metres above ground level for Secondary Roads and 10-12 metres above ground level for Main Distribution Roads.

12.17 In exceptional circumstances columns with a mounting height of less than 6 metres but meeting BS 5489, BS EN 13201 requirements (or subsequently revised standards) and the general requirements of Stockport Council may be considered.

12.18 Where required (e.g. under a Section 278 agreement), new lighting is to match or complement any existing lighting at the entrance to a site.

12.19 When traffic calming is designed into a scheme, careful consideration must be given to the siting of street furniture to ensure that all features are adequately lit and uniformity of light on the highway is maintained. Reference should be made to the Institution of Lighting Engineers Technical Report No 25 (or subsequent standards).

12.20 The use of specialised style street lights is restricted to Conservation Areas. However, such lighting may be considered where the developer can provide special justification. This will be at the discretion of the Council and if granted the developer will be required to pay a Capital Sum equivalent to the additional maintenance costs for a 10 year period. This will include the purchase of at least one additional unit (number to be determined dependant on scheme size).

Light sources and control gear

12.21 There is a general desire in the borough to have white lighting especially in areas of high usage after dark and in conservation areas. However, other qualities of light maybe acceptable in relevant locations.

12.22 All street lighting points shall be individually controlled with electronic photo-electric cells which must be selected from the Council's "List of Approved Street lighting and Illuminated Traffic Sign Equipment". Where practical, a photo-electric cell that eliminates the need of a capacitor will be installed.

12.23 Where possible, electronic ballasts shall be used to achieve near Unity Power Factor Correction.

Light pollution and glare

12.24 Care should be taken in designing a scheme to avoid annoyance being caused by stray light. See Guidance Notes for the Reduction of Lighting Pollution issued by the Institution of Lighting Engineers for acceptable levels. In more rural situations the advise in Lighting in the Countryside: Towards Good Practice by the Department for transport may also be useful.

12.25 Locating a column in line with a party boundary, combined with use of modern optics, may reduce or prevent nuisance from stray light. Ease of access for maintenance vehicles should be taken into consideration when deciding on column locations.

12.26 Luminaires shall be selected with efficient optical control to direct light only onto the surfaces to be lit. Glare control on lanterns shall be achieved with the use of curved tempered glass bowls with a maximum threshold increment of 15%. See Guidance Notes for the Reduction of Lighting Pollution issued by the Institution of Lighting Engineers for acceptable levels.

Access to new sites

12.27 Where a proposed development is to lie beyond the limits of existing lighting it may be necessary for the access to the proposed development, as well as the development itself, to be lit at the expense of the developer. Early consultation with the Council's Engineers is essential. A new lighting scheme must integrate with the existing, leaving no unlit or dark areas. Existing lighting which is to be removed or re-sited, shall be included in the details of the proposed works.

12.28 All street lights shall be fed direct from United Utilities supply cables, with the exception of specific units located on splitter islands, central islands of roundabouts and pedestrian refuge islands. All illuminated signs and bollards are to be electrically sub-fed from the nearest lighting column or feed pillar.

Lighting for Different Usage Types

12.29 Lighting should be planned to cater for a variety of road users. Lighting shall generally be planned to promote safe usage, through the provision of functional light levels and patterns, and to reduce the risk of accident, especially for vulnerable road users in line with policy TD2 .

12.30 Lighting shall be planned to contribute to crime prevention and a safe night-time ambience (DCD1.6). In respect of the lighting created by a lighting installation, consideration should be given to:

- The aesthetics character and integration of luminaries, columns, brackets and other associated equipment that will be visible;
- Light colour;
- The colour rendering capabilities of light sources;
- Light patterns created by lighting schemes.

12.31 (DCD1.1 (xi))

12 Street Lighting

Cycle lanes

12.32 Lighting to cycle lanes shall generally permit prompt identification of other path users and thus helps prevent collisions, especially in built up areas. Lighting uniformity should be given special attention as ability to identify other path users is severely impaired by patches of darkness.

12.33 Lighting to cycle lanes shall generally make hazards such as potholes and bumps easy to make out to reduce the risk of accidents, especially on fast stretches. Lighting uniformity should be given special attention as ability to identify obstacles is severely impaired by patches of darkness. Correctly planned road/street lighting can also cater for cycle lanes that flank highways. For cycle paths in parks and gardens, or that are set back from the road network, a separate lighting system will be required.

Bus lanes

12.34 Correctly planned road/street lighting can also cater for bus lanes that flank roadways/ streets. For segregated bus lanes, a separate lighting system is required.

Pedestrian zones and precincts and squares

12.35 Lighting for pedestrian zones, precincts and squares needs to meet decorative criteria as well as functional and safety criteria. Luminaires must harmonise and/or integrate with the surrounding architecture and use light to create a pleasant atmosphere/ambience (TD2).

12.36 Lighting should be conducive to the prevention of accidents and crime and should generally make obstructions and hazards identifiable well in advance (DCD1.6).

12.37 Light levels, pattern and semi-cylindrical illuminance should all be given key consideration.

General pathways

12.38 Lighting on paths shall be planned to enhance public safety and the night-time ambience on them (DCD1.6).

12.39 Luminaires should generally be sited along paths to indicate routes.

12.40 Light levels, pattern and colour should be conducive to the prevention of crime and the promotion of a safe convivial night-time ambience (DCD1.6).

Public artworks and street furniture etc.

12.41 Where required, public artworks and street furniture etc shall be illuminated to the requirements of Stockport Council in line with their promotion of convivial public realm spaces, whilst being mindful of the need for energy efficiency (DCD1.1).

Lighting arrangement general setting-out

12.42 The positions of street lighting columns are to be agreed on site with the Council's Engineer prior to erection. Columns will normally be sited at the back edge of the footway or footpath.

12.43 Where there are service strips to access ways or a grass verge exists between the carriageway and the footpath the columns should be sited 1.5 metres from the edge of the carriageway provided there is no restriction to visibility.

12.44 Where hinged columns are specified they must be sited so as to enable the column to be raised and lowered for maintenance purposes without encountering obstruction and without entering or overhanging either the carriageway or private land.

12.45 Clearance from all overhead cables must be maintained at all times so as not to impose any restrictions during the erection procedure of any equipment or for its future maintenance.

12.46 It is usual to design a staggered layout where road geometry allows it, but where a road is curved, lights should be provided on the outside of the bend.

12.47 Care must be taken that any buildings and trees do not produce shadows which could give rise to concerns for personal safety (DCD1.6).

12.48 Columns shall be positioned to minimise the risk of impact by vehicles.

Planning and the adoption of public realm lighting Requirements

12.49 It is the requirement of the Council as Highway Authority that all roads that are to be adopted shall be provided with street lighting to the satisfaction of the Council's Engineers.

12.50 Where a site lies beyond the limits of an existing lighting scheme it may be necessary for the intervening section to be lit at the expense of the developer. Early consultation with the Council's Engineers is essential.

12.51 Subsequent to receiving detailed planning permission, details of the layout and design of a street lighting scheme will need to be approved in respect of roads to be adopted.

12.52 An application for the approval of a design by others shall include all column positions and a description of the equipment proposed. Full details of the equipment proposed and a copy of the calculations detailing the performance of the lighting system are to accompany the drawings. The details are to include the positioning of new illuminated signs and bollards. Existing lighting on the adjoining roads shall be shown on the drawings. The new lighting scheme is to integrate with the existing, leaving no unlit or dark areas. Existing lighting which is to be removed or re-sited, shall be included in the details of the proposed works.

12.53 The developer is to show all lighting, signing, bollards etc., on all construction/layout plans (including sales and legal/conveyancing literature) in order that the prospective residents are aware that there may be street furniture placed adjacent to any given plot.

12.54 Adoption of lighting as above, and energy payments by the Council, will only take place upon adoption of the scheme.

12.55 Unless the installation has been carried out by the Council, the developer will remain responsible for the replacement of any part of the installation found to be defective within 12 months of commissioning.

12 Street Lighting

12.56 The developer will also be held responsible for the replacement of damaged/vandalised columns or equipment until final road adoption under the Section 38 procedure takes place.

Further Information and Help:

Lighting in the Countryside: Towards Good Practice, 1997, Department for Committees and Local Government, at www.communities.gov.uk

Design Manuel for Roads and Bridges - Road Lighting Vol.10, Highways Agency, at: www.standardsforhighways.co.uk/dmbr/index.htm

Lighting and the Environment - A Guide to Good Urban Lighting, 1995, Institute of Lighting Engineers

Institution of Lighting Engineers Technical Report No 25

Guidance Notes for the Reduction of Lighting Pollution, 2000 Institution of Lighting Engineers

Street Lighting Specification for Section 38 Schemes - Works Carried Out by Others, is available from the Street Lighting section on request.

List of Approved Street lighting and Illuminated Traffic Sign Equipment, Stockport Council, is available from the Street Lighting section on request.

NJUG 10 Guidelines for the planning, 1995, Installation and Maintenance of Utility Services in Proximity to Trees, at: http://www.njug.demon.co.uk/pdf/NJUG%20Publication10.pdf

BS 5489, Code of practice for design of road light, lighting of tunnels, British Standard Institute

BS 1840 Tubular Steel Columns for Street Lighting, British Standard Institute

BS 5649 Lighting Columns, Method for Verification of Structural Design by Calculation, British Standard Institute

BS EN 13201 Road Lighting, British Standard Institute

BS EN 60598 Luminaries General Requirements and Tests, British Standard Institute

A Transport Assessment

Preparing a Transport Assessment or Statement

Figure 5 Transport Assessment Process and contents (Guidance on Transport Assessment, DfT, March 2007) shows the iterative process that should be used to produce a Transport Assessment or Statement and the basic components within it.

A Transport Assessment

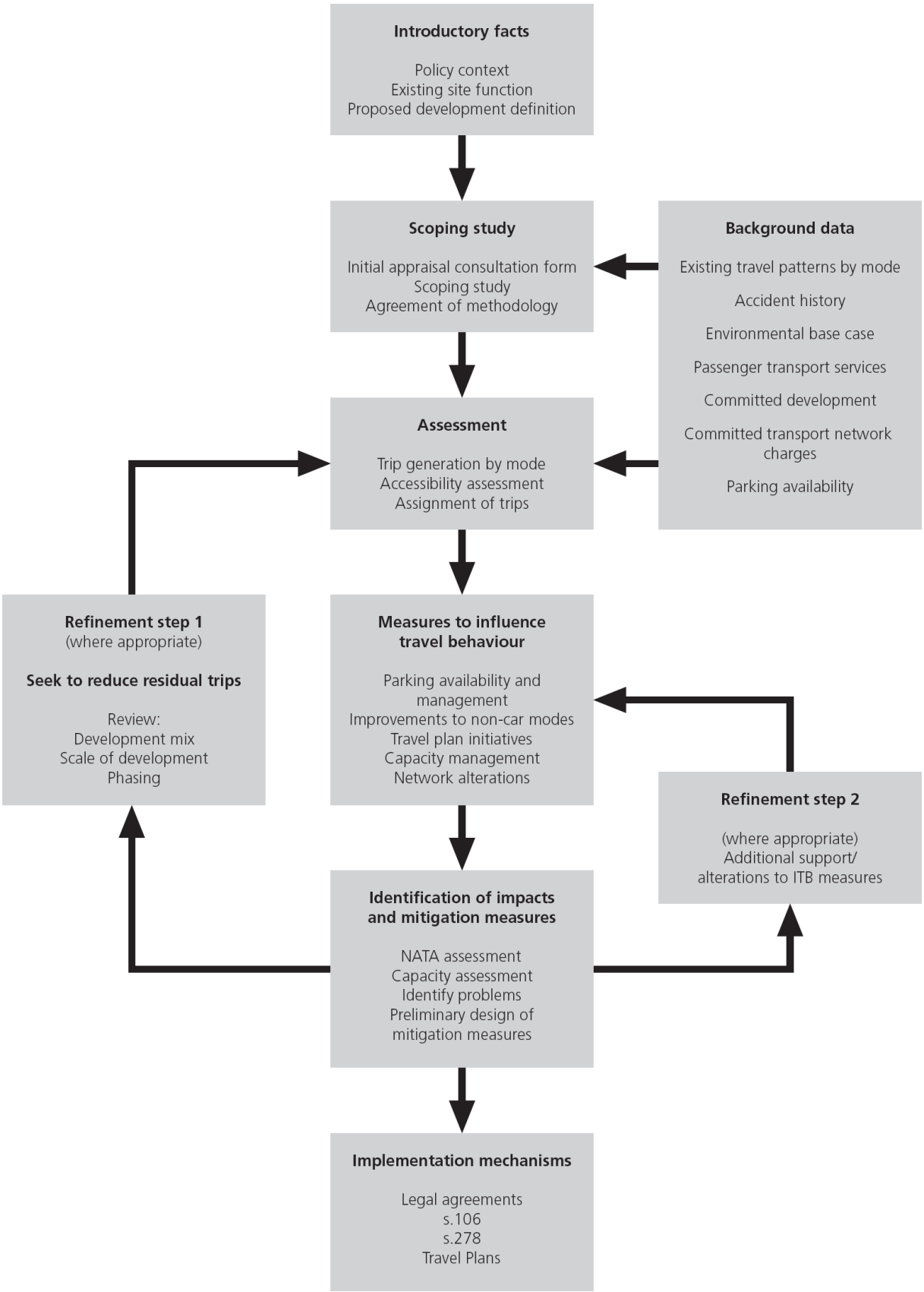

Figure 5 Transport Assessment Process and contents (Guidance on Transport Assessment, DfT, March 2007)

Information to be included in a Transport Statement

If it has been agreed that a transport statement is necessary for a development the following information should be included.

The developer should provide a full description of:

A. **EXISTING CONDITIONS**

- existing site information – describing the current physical infrastructure and characteristics of the site and its surroundings;
- baseline transport data – background transport data and current transport infrastructure details.

The description should include as a minimum:

- **Existing site information**
  - a site location plan that shows the proposed development site in relation to the surrounding area and transport system;
  - the permitted and existing use of the site;
  - the existing land uses in the vicinity of the site, including development plan allocations, or potential future use in the case of undeveloped sites;
  - existing site access arrangements including access constraints, where appropriate;
  - whether the location of the site is within or near a designated Air Quality Management Area (AQMA);
  - any abnormal load uses of the current site.
- **Baseline transport data**
  - a qualitative description of the travel characteristics of the existing site, including pedestrian and cyclist movements and facilities, where applicable;
  - existing public transport provision, including provision/frequency of services, location of bus stops/train stations, park-and-ride facilities;
  - a description and functional classification of the highway network in the vicinity of the site;
  - an analysis of the injury accident records on the public highway in the vicinity of the site access for the most recent three-year period, or five-year period if the proposed site has been identified as within a high accident area.

B. **PROPOSED DEVELOPMENT**

The developer should provide a full description including, as a minimum:

- plans and drawings showing the proposed site layout, particularly the proposed pedestrian and vehicular access points into the site;
- the proposed land use;

A Transport Assessment

- the scale of development, such as numbers of residential units and/or gross floor area (GFA), subdivided by land use where appropriate;
- the main features (design layout and access points) of the development;
- the person-trip generation of the proposed development and distribution of trips across mode;
- a qualitative and quantitative description (based on recent site observations) of the travel characteristics of the proposed development, including pedestrian and cyclist facilities/movements, in the vicinity of the site;
- proposed improvements to site accessibility via sustainable modes of travel, such as provision/enhancement of footpath and cycle path linkages, public transport improvements, and servicing arrangements where appropriate;
- a proposed parking strategy (demonstrating how car parking will be managed and will deal with issues such as reserved areas for disabled and car sharing scheme members) and internal vehicular circulation (including number of spaces, parking accumulation, parking layout in relation to other site elements, ratio of operational to non-operational spaces, method of car park operation, overspill parking considerations, disabled parking, motorcycle parking, cycle parking, taxi drop-off points);
- residual vehicular trip impact;
- the transport impacts of site construction, including the requirements of abnormal loads in the construction, use and decommissioning the present development;
- the transport impacts of freight or service operations; and if the site of the proposed development has a current use or an extant planning permission with trip patterns/volumes, the net level of change that might arise out of the new proposals should be set out.

The above requirements are not exhaustive and there may be a need for supplementary information that takes account of local conditions as well as other material considerations.

Information to be included in a Transport Assessment

If it has been agreed that a transport assessment is necessary for a development the following information should be included in the report on the agreed study area for the proposed development.

The developer should provide a full description of:

A. **EXISTING CONDITIONS**

The description should include as a minimum:

- **Existing site information**
  - a site location plan that shows the proposed development site in relation to the surrounding area and transport system;
  - the permitted and existing use of the site;
  - the existing land uses in the vicinity of the site, including development plan allocations, or potential future use in the case of undeveloped sites;
  - existing site access arrangements including access constraints, where appropriate;

- whether the location of the site is within or near a designated Air Quality Management Area (AQMA);
- any abnormal load uses of the current site.

- **Baseline transport data**

  - the quantification of the person trips generated from the existing site and their modal distribution, or, where the site is vacant or partially vacant, the person trips which might realistically be generated by any extant planning permission or permitted uses;
  - existing public transport facilities (including provision/frequency of services, location of bus stops/train stations, park-and-ride facilities) in the study area; if available, the current level of patronage or usage on the public transport network in the vicinity of the site;
  - parking facilities available in the vicinity of the site;
  - existing pedestrian and cycle facilities in the vicinity of the site;
  - pedestrian and cyclists movements in the vicinity of the site;
  - a description and functional classification of the road network in the vicinity of the site;
  - current traffic flows on links and at junctions within the study area;
  - identification of the critical links and junctions on the highway network, with calibrated capacity tests to reflect existing conditions;
  - for the study area, establish the current personal injury accident records for the most recent three-year period, or five years if this is considered to be more appropriate;
  - a summary of planned transport improvements within the study area (including type of improvement, implementation schedule and sponsoring agency or highway authority);
  - identify current peak periods on the adjacent road network and, as required, daily traffic flow data to and from the development site or in the vicinity of the site;
  - levels for air quality and noise for the highway network at the site entrance and any other locations where statutory limits might be breached by additional development traffic;
  - baseline carbon emissions data for the site, broken down by mode.

- **Public Transport Assessment**

  - An assessment should be made of the available capacity on the existing public transport infrastructure relevant to the development.

- **Walking / cycling assessment**

  - An assessment should be made of the available capacity of the existing cycling and footpath network in the area of the development to inform travel plan objectives and indicate what enhancements, if any are required to the local cycle and footway network.

- **Road Network Assessment**

  - An assessment of the available vehicular capacity on the road network, and parking availability, in the vicinity of the site should be undertaken in order to establish the potential impacts from the development, as well as any likely mitigation measures that may be required to sustain the development.

A Transport Assessment

- **Traffic Data and Traffic Forecast**
    - This assessment should include recent counts for peak period turning movements at critical junctions.
- **Safety Considerations and Accident Analysis**
    - This assessment should identify any significant highway safety issues and provide an analysis of recent accident analysis in the study area.

B. PROPOSED DEVELOPMENT

A detailed description of the proposed use or uses of the site should be provided. This should include as a minimum:

- site plan – provide plans and drawings showing site location and site layout and use;
- describe all the proposed land uses;
- scale of development – such as the number of residential units or gross floor area (GFA) of development – subdivided by land use where appropriate;
- site area in hectares;
- hours of operation – specify a weekly profile, including weekends where appropriate, over a 16 or 24 hour period. If the operation is seasonal, then this also needs to be specified;
- proposed access – describe arrangements, locations and method of linkage to existing transport infrastructure for all modes of travel (private cars, public transport, cycling, walking);
- servicing arrangements – describe routes and facilities for service vehicles;
- the traffic impacts of site construction works, including the requirements of abnormal loads in the construction, use and decommissioning of the present development;
- proposed parking strategy (number of spaces, parking accumulation, parking layout in relation to other site elements, ratio of operational to non-operational spaces, method of car park operation, overspill parking considerations, establishment of/proximity to controlled parking zones, disabled parking, motorcycle parking, cycle parking);
- development phasing (where applicable) – provide years of first and full occupation, as well as intermediate years if appropriate.

Appraising The Impact Of The Proposed Development

The potential impact of the of the development proposal should be assessed within the New Approach to Appraisal (NATA) framework of five objectives though not all proposed development Transport Assessments will warrant the use of the full methodology recommended by the NATA process.

The above requirements are not exhaustive and there may be a need for supplementary information that takes account of local conditions as well as other material considerations and these should be identified and agreed with the relevant planning officers in a scoping study of what should be investigated before work begins on the assessment.

Indicative thresholds for Transport Assessment

The table below shows the indicative thresholds for transport assessment as advised by the Department for Transport. These are not absolute measures and the planning officer involved with a proposed development will take in to account other factors when advising of the significance of a development and the related level of transport assessment needed.

Threshold based on size or scale of land use						
	Land use	**Use / description of development**	**Size**	**No Assessment**	**Transport Statement**	**Transport Assessment**
1	Food retail (A1)	Retail sale of food goods to the public – food superstores, supermarkets, convenience food stores.	GFA	<250 sq. m	>250 <800 sq. m	>800 sq. m
2	Non-food retail (A1)	Retail sale of non-food goods to the public; but includes sandwich bars – sandwiches or other cold food purchased and consumed off the premises, internet cafés.	GFA	<800 sq. m	>800 <1500 sq.m	>1500 sq. m
3	A2 Financial and professional services	Financial services – banks, building societies and bureaux de change, professional services (other than health or medical services) – estate agents and employment agencies, other services – betting shops, principally where services are provided to visiting members of the public.	GFA	<1000 sq. m	>1000 <2500 sq. m	>2500 sq. m
4	A3 Restaurants and cafés	Restaurants and cafés – use for the sale of food for consumption on the premises, excludes internet cafés (now A1).		<300 sq. m	>300 <2500 sq.m	>2500 sq. m
5	A4 Drinking establishments	Use as a public house, wine-bar or other drinking establishment.	GFA	<300 sq. m	>300 <600 sq.m	>600 sq. m
6	A5 Hot food takeaway	Use for the sale of hot food for consumption on or off the premises.	GFA	<250 sq. m	>250 <500 sq.m	>500 sq. m
7	B1 Business	(a) Offices other than in use within Class A2 (financial and professional services) (b) research and development – laboratories, studios	GFA	<1500 sq. m	>1500 <2500sq.m	>2,500 sq. m

Threshold based on size or scale of land use						
	Land use	**Use / description of development**	**Size**	**No Assessment**	**Transport Statement**	**Transport Assessment**
		(c) light industry				
8	B2 General industrial	General industry (other than classified as in B1),The former 'special industrial' use classes, B3 – B7, are now all encompassed in the B2 use class.	GFA	<2500 sq. m	>2500 <4000 sq. m	>4000 sq. m
9	B8 Storage or distribution	Storage or distribution centres – wholesale warehouses, distribution centres and repositories.	GFA	<3000 sq. m	>3000 <5000 sq. m	>5000 sq. m
10	C1 Hotels	Hotels, boarding houses and guest houses, development falls within this class if 'no significant element of care is provided'.	Bedroom	<75 bedrooms	>75 <100 bedrooms	>100 bedrooms
11	C2 Residential institutions - hospitals, nursing homes	Used for the provision of residential accommodation and care to people in need of care.	Bed	<30 beds	>30 <50 beds	>50 beds
12	C2 Residential institutions – residential education	Boarding schools and training centres.	Student	<50 students	>50 <150 students	>150 students
13	C2 Residential institutions – institutional hostels	Homeless shelters, accommodation for people with learning difficulties and people on probation.	Resident	<250 residents	>250 <400 residents	>400 residents
14	C3 Dwelling houses	Dwellings for individuals, families or not more than six people living together as a single	Dwelling Unit	<50 units	>50 <80 units	>80 units

Threshold based on size or scale of land use						
	Land use	**Use / description of development**	**Size**	**No Assessment**	**Transport Statement**	**Transport Assessment**
		household. Not more than six people living together includes – students or young people sharing a dwelling and small group homes for disabled or handicapped people living together in the community.				
15	D1 Non-residential Institutions	Medical and health services – clinics and health centres, crêches, day nurseries, day centres and consulting rooms (not attached to the consultant‘s or doctor‘s house), museums, public libraries, art galleries, exhibition halls, nonresidential education and training centres, places of worship, religious instruction and church halls.	GFA	<500 sq. m	>500 <1000 sq.m	>1000 sq. m
16	D2 Assembly and leisure	Cinemas, dance and concert halls, sports halls, swimming baths, skating rinks, gymnasiums, bingo halls and casinos. other indoor and outdoor sports and leisure uses not involving motorised vehicles or firearms.	GFA	<500 sq. m	>500<1500 sq.m	>1500 sq. m
17	Other	For example: stadium, retail warehouse clubs, amusement arcades, launderettes, petrol filling stations, taxi businesses, car/vehicle hire businesses and the selling and displaying of motor vehicles, nightclubs, theatres, hostels, builders‘ yards, garden centres, POs, travel and ticket agencies, hairdressers, funeral directors, hire shops, dry cleaners.	TBD	Discuss with appropriate highway authority	Discuss with appropriate highway authority	Discuss with appropriate highway authority

Table 4 Indicative thresholds for Transport Assessment

B Summary of Possible Measures for Travel Plan

Possible Travel Plan Measures - Workplaces

Reducing the need to travel / alternative working practices

- Tele-working/remote working/home working
- Tele-conferencing/Video-conferencing
- Flexi-time
- Compressed working week (9 days fortnight)
- Provision of facilities on site
- Publicise TP when recruiting
- Relocation packages
- Induction TP pack
- Use of local labour

Public Transport

- Improved network provision
- Information provision
- Personalised journey planning
- Discounted tickets
- Interest-free season ticket loans and /or tax free bus tickets
- Improvements to existing services
- Improvements to waiting environment.
- Works buses/shuttle buses
- Guaranteed ride home
- Promotional material and events
- Improved walking & cycling access to stations & stops

Walking

- Improved network provision
- Improved network maintenance
- Sign posting
- Route Maps
- Provision of shower/ change/ locker facilities
- Provision of umbrellas/rainproof clothing
- Provision of personal alarms
- Promotional material and events
- Self-defence lessons

Cycling

- Improved network provision
- Improved network maintenance

B Summary of Possible Measures for Travel Plan

- Provision of secure cycle parking
- Provision of shower/ change/ locker facilities
- Route Maps
- Sign posting
- Interest-free loans to buy cycle/equipment and/or tax free bike schemes
- Introduce cycle mileage rates
- Obtain discounts from local shops
- Establish BUG
- 'Bike Doctor' and other support, e.g. training
- Promotional material and events

Powered two wheelers

- Provision of secure parking
- Provision of shower/ change/ locker facilities
- Interest free loans

Car park management

- Car park permit scheme
- Car park exclusion zone
- Car park charging (NOT annual)
- Parking cash-out
- Discounts for parking greener vehicle and / or car pool vehicles
- Controlled parking including - staff/ visitor and car pool segregation

Fleet management

- Review company car policy
- Van pooling/drive share
- Reducing business mileage
- Reviewing mileage rates
- Driver training
- Route planning
- Pool cars

Fleet vehicles

- Use of efficient vehicles
- Use of 'clean fuels'
- Review company car policy
- Pool bikes

Deliveries

- Rationalisation
- Use of local suppliers

Car sharing

- Match-finding database
- Coffee clubs (to find partners)
- Reserved parking spaces near to entrance
- Free parking
- Guaranteed ride home
- Promotional material and events

Possible Travel Plan Measures - Schools

Walking

- ‘Walking Bus’
- Walking reward schemes e.g. Go for Gold
- Identification of safer walking routes
- Lockers for pupils to store books / bags
- Park and Walk scheme
- Walking campaign
- Shelter for walking parents

Cycling

- Cycle training courses
- Identify safe routes for cycling
- Secure cycle storage
- Bikers' Breakfast
- Showers, changing facilities and lockers
- Provision of helmets and bright clothing
- 'Bike bits swap-shop' and a 'Bike Clinic'
- Poster / leaflet campaigns
- ‘Cycle trains’
- Discounts at local bike shops

Public Transport

- Promoting use of bus and rail
- Additional school buses
- Concessionary bus fare scheme
- Parent escorts on buses
- Information and publicity
- Private minibuses
- On-site bus stops/facilities

Car Use

- Car share matching scheme
- ‘Drop-off ' point away from the school gate
- Ban cars from the school gate area

B Summary of Possible Measures for Travel Plan

Highway Measures

- 20mph zones outside school
- Priority measures for school buses
- Safe crossings outside school / along routes
- Cycle lanes and cycle tracks
- Junction narrowing / parking reorganisation
- School crossing patrol

School Management Issues

- School policy
- Staff supervision of entrance
- Access restrictions in school
- Timetable planning and length of school day

Road Safety Training / Classroom Work

- Pedestrian training
- Cyclist training
- Parent escort training
- Cycle helmet wearing initiatives
- Pre-driver training
- Road safety curriculum work
- Safe route planning (Geography)
- Bike shed design (CDT)
- Survey analysis (Maths / Computing)
- Promotional work (English, Art and Drama)
- Risk management, health and citizenship (PSHE)

Possible Travel Plan Measures - Residential

Site Design

- Permeability for pedestrians and cyclists
- Traffic calming/pedestrian and cycling friendly infrastructure
- Highways safety measures
- Site speed limits
- Restrictions on car movements within site
- Parking restrain (or potential car free site)
- Minimising intrusion from parking
- Areas for social exchange, recreation, seating, play and biodiversity
- Cycling parking on site and in home where accessible
- Bus routing: ensure road design allows bus to reach all development and connections well with the surrounding area
- Bus infrastructure such as stands, shops, shelters, bus gates and real time information (where services will be entering the site)

Summary of Possible Measures for Travel Plan B

- Adoption of home zone principles or home zone features.
- Walking & cycling access to railway stations & stops

Improvements to off site access

- Road safety improvements to highways infrastructure serving the site
- Creation and enhancements of cycling and walking links serving the site
- Provision of off site bus infrastructure/priority on routes serving the site
- Facilities that reduce the need to travel
- Health centres/surgeries
- Education/childcare
- Shopping/Home delivery - e.g. convenience store; cool storage areas for collections of groceries
- Employment - e.g. mixed residential/office use or life/work accomodation, broadband, tele-centre
- Leisure
- Community centre of similar

Public transport improvements

- New or enhanced bus services
- Facilities to improve interchange (e.g. cycle parking/lockers at stations)
- New or enhanced rail services

Car club

- Service established on site
- Parking bays allocated

Other services to support sustainable travel

- Broadband access and provision of office space in houses
- Home delivery grocery service and refrigerated drop-off points on site
- Taxis
- Cycle centre
- Car share scheme
- Community travel forum
- Bicycle user group/buddy scheme
- Measures to support complementary travel plans, on site and off site
- Schools
- Workplaces
- Leisure facilities
- Taster tickets for Public Transport