Chapter 7

Movement

7.1 Introduction

Overview

7.1.1 A good transport system is necessary to ensure economic vitality for businesses and a high quality of life for residents. In the last twenty years, transport improvements which concentrated on road users have greatly increased freedom of movement. This has changed people's expectations, led to a significant increase in car use and enabled a more dispersed pattern of land use to evolve.

7.1.2 However, the way we travel is damaging our towns and cities. Congestion, pollution, social exclusion, decreased safety and environmental damage are the main problems associated with motorised road traffic. In some areas of London these problems are becoming acute. As congestion increases, average speeds fall and journey times increase. Stationary traffic generates air pollution, and in some locations in Barnet this is becoming a serious problem. The peak travel periods are getting longer and residential areas adjacent to main roads are suffering increasing problems from through-traffic. Although modern motor vehicles emit less pollution, the increase in vehicle numbers has offset this gain. Generally, providing additional facilities for the car simply increases car ownership and use. Although unrestrained car usage could eventually lead traffic to reach a natural saturation level, this level is beyond that which the country could accommodate. Transport measures such as traffic calming and parking management have been used in an attempt to ameliorate some of the problems, but can sometimes just displace the problems elsewhere.

7.1.3 In 2001, Barnet had 1.1 cars per household (the eighth highest figure in London) and 73% of the borough's households had access to a car (the tenth highest figure in London). Nevertheless, development orientated towards car use can exclude a significant percentage of the population. The location and nature of development has a significant effect on the amount and mode of travel. Recent years have seen the increasing decentralisation of homes and jobs, and the concentration of hospitals, shops, leisure activities, schools and other facilities into larger and more distant units. The car has become more important to gain access to these facilities, which disadvantages those without access to a car.

7.1.4 An integrated approach is required to tackle road traffic problems and Barnet's residents support a strategy based on this approach. The greatest impact on traffic growth can be achieved by reducing the need for people to travel and by making non-car modes of travel more attractive than at present. These are issues upon which planning policies can have a crucial impact. New development should be encouraged in locations accessible by an appropriate range of travel modes. This chapter sets out detailed policies on 'movement' which are intended to contribute towards a safe, efficient and sustainable transport system which is available for all to benefit from.

National Planning Policy Context

7.1.5 The government's objectives for movement and transport planning are set out in a series of Planning Policy Guidance Notes and Planning Policy Statements:

- PPS1 – *Delivering Sustainable Development* emphasises, in relation to transport, that local authorities should integrate their transport programmes and land use policies in ways which help to reduce emissions by encouraging patterns of development which reduce the need to travel by private car. They should also try to reduce the need to travel at all, and should certainly encourage accessible public transport provision in order to secure more sustainable patterns of transport development. The planning system should be used to manage patterns of urban growth to make the fullest use of public transport, with development focused in existing population centres and near to major public transport interchanges.
- PPG12 – *Development Plans* (1999) stresses the importance of integrating land use planning with transport planning, by co-ordinating regional and local transport plans with unitary development plans, in order to facilitate sustainable development.
- The need to achieve sustainability and reduce the demand for travel are the main themes running through PPG13 – *Transport* (2001), which emphasises the need to extend choice in transport and secure mobility in a way that supports sustainable development. Transport planning policies are part of an overall approach to addressing the needs of motorists,

businesses and public transport users by reducing congestion and pollution, whilst achieving better access to developments and facilities. It acknowledges that the car will continue to have an important part to play and states that parking policies, alongside other planning measures, are required to manage demand and restrain the growth of road traffic.

- The principles of PPG13 are followed through in PPS6 – *Planning for Town Centres* (2005), which attempts to reconcile the sometimes conflicting objectives of maintaining the viability and vitality of town centres, with increases in travel. The "sequential approach" requires the consideration of accessibility by a choice of transport modes, and the effect on overall car use and travel patterns, as key factors in determining the preferred location for retail development. A key theme in PPS6 is to promote the accessibility of town centres by a choice of means of transport.

7.1.6 The government's White Paper, *A New Deal for Transport*, considers the problems of providing sustainable transport and sets out the approach to achieve an integrated transport policy.

Regional Planning Policy Context

7.1.7 The Mayor of London has an important role in transport planning in London. A key objective of the *London Plan* is to improve London's accessibility, making it easier to move around the city. Its strategic guidance with regard to transport states:

> To achieve the Mayor's vision of an exemplary, sustainable world city, the quality of London's transport must be transformed. This means taking an integrated approach to transport provision and development, making major improvements to public transport and tackling traffic congestion.

7.1.8 The Greater London Authority Act 1999 gives the Mayor of London powers to develop and implement a *Transport Strategy* for London. This strategy may influence changes to transport policies applied in the borough during the life of this UDP, such as proposals for road pricing and taxing workplace car spaces. The Mayor has set the following strategic objectives for transport policy in London:

- To provide the spatial framework for the development of London's transport system, to ensure that development supports the *The Mayor's Transport Strategy*.
- To improve and expand London's public transport through increased and phased investment in services and infrastructure.
- To minimise the need to travel and the growth of journey lengths.
- To improve international, national and regional transport access to London, including airports and ports.
- To integrate development with public transport, to ensure that there is a proper fit between development and the capacity of the public transport network to service it over the period of the *London Plan*. This entails taking appropriate opportunities to intensify the use of land where current or future transport capacity allows, and connecting Londoners to employment opportunities.
- To tackle congestion through levels of restraint of car use appropriate to the different parts of London, and the provision of alternatives, including the improvement of access on foot and by cycle, and the provision of better and safer facilities for pedestrians and cyclists.
- To improve the sustainable movement of freight within and around London, making more use of water and rail.

7.1.9 The key principles and priorities in the *London Plan* and *The Mayor's Transport Strategy* included in Barnet's UDP, because they are considered appropriate for the borough, are as follows:

- That development should be planned and located with the aim of providing a range of attractive and convenient travel choices and encouraging alternatives to car use (in accordance with PPG13). In particular, new high density, trip-generating development should be located in areas that are, or will be made, accessible by public transport, taking account of public transport capacity.
- Regard should be given to the residential parking standards set out in PPG3 – *Housing* and the former London Planning Advisory Committee's policies for sustainable residential quality, although the possibility of applying stricter standards should be considered.

- There is a need to support and enhance the role of town centres by providing sustainable access through land use planning, development and transport policies. In accordance with PPG6, the provision of developer contributions for transport measures, where appropriate and reasonably related to the development proposal, should be sought.
- Transport assessments should be provided for major new trip-generating development proposals, which should include information about how travel behaviour will be influenced by the proposed development and how public transport, walking and cycling will be encouraged. Workplace travel plans should be produced where appropriate.

7.1.10 Boroughs are reminded to have regard to the interrelationships between London and the rest of the South East. For the Outer London boroughs, such as Barnet, these interrelationships are even more important. Policy T3 of RPG9 – *Regional Planning Guidance for the South East* (2001) states that Outer London boroughs should adopt maximum car parking standards for B1 uses within the range from 1:100m^2 to 1:600m^2 of floorspace. The *London Plan* policies 3C.22/23 and Table A4.1 in Annex 4 on parking standards are consistent with those in RPG9, and the *London Plan* now forms part of Barnet's development plan.

7.1.11 Policy 3.8 in the *The Mayor's Transport Strategy* states that Transport for London, the Greater London Authority, the London boroughs (including Barnet) and the London Development Agency will work together, and with other key partners, to identify and promote:

- Suitable sites for high quality, carefully designed, higher density and mixed use development in locations where there are high levels of public transport access and capacity.
- Sustainable forms of land use and transport in London's suburbs in order to improve the quality of access for the 60% of Londoners that live there.
- Highly accessible 'hub' transport nodes which could act as key development and interchange points and, where appropriate, also link with regeneration initiatives.
- Suitable sites across London for passenger transport purposes such as bus depots, and for goods transport purposes (for example, distribution centres and freight interchanges).
- Suitable sites for a small number of major freight interchanges between road, rail and water, with high multi-modal accessibility which supports sustainable economic development.

Borough Context

7.1.12 The council recognises the importance of transport links to enable freedom of movement and facilitate business and social activity in Barnet. There are significant lengths of trunk road in Barnet, some of which carry in excess of 80,000 vehicles per day. Some of the main transport routes into Northwest London, and the orbital North Circular Road, pass through the borough. In common with many areas of Outer London, the borough's road and rail routes are generally radial (North-South), with relatively poor orbital (East-West) connections. This situation creates specific transport problems for the borough, in particular the effect of through-traffic in residential areas.

7.1.13 A key aim in the council's Corporate Plan is to "create a sustainable, high quality, safe and healthy environment and a thriving local community". The council will continue its work on transport, traffic and parking with the objective of improving accessibility for all Barnet's people while protecting the environment. To meet these aims, the council has prepared a *Transport Strategy* and a Local Agenda 21 Strategy, both of which embrace the principles of sustainable development.

7.1.14 The *Transport Strategy 2006 – 2016* has been produced in order to enable the council to be more proactive and focused in the development of transport-related policies and proposals, and to be better able to influence and respond to proposals by others. The strategy sets out targets to reduce traffic levels, increase cycling, walking and public transport journeys, and reduce pedestrian casualties. It draws on a range of policy documents and themes to produce a balanced package of measures, with a focus on the need for sustainability and a co-ordinated approach to deal with transportation problems.

7.1.15 The role of land use and planning policies within this overall approach of the council underpins the detailed policies set out in this chapter of the Plan.

Strategy

7.1.16 With regard to movement, the council has the following objectives:

- To reduce the need to travel and reduce the reliance on the motor car.
- To promote the use of sustainable alternative travel modes.
- To protect people and businesses from the negative effects of traffic and parking.
- To ensure the provision of a safe and efficient transport system with access for all.
- To comply with the statutory and legal obligations of the council.

7.2 Strategic Policies

7.2.1 The key strategic policies that will contribute towards a safe, efficient and sustainable transport system are as follows.

~~**Policy GLoc – Reducing Need to Travel**~~

~~The council will encourage development in locations which will reduce the need for travel, promote the use of public transport and other non-car modes of transport, and reduce the number and journey length of those trips which are made by car.~~

Policy GRoadNet – Road Network

The council will seek to ensure that roads within the borough are used appropriately according to their status in the defined road hierarchy.

Policy GParking – Parking

The council will apply standards and policies to regulate parking in the borough, in order to restrain the growth of car use and minimise the inconvenience and danger caused by indiscriminate parking.

~~**Policy GNonCar – Sustainable Transport**~~

~~The council will encourage the use of more sustainable modes of travel such as public transport, cycling or walking.~~

7.3 Detailed Policies

Development, Location and Accessibility

7.3.1 As economic activity and population grow, the volume of goods and people that need to move around increases. Additional and expanded routes are required to cope with the increase in trips, and to a certain degree, these routes then encourage further growth and more traffic. Providing for growth by building new roads cannot be sustained either environmentally or economically.

7.3.2 The pattern of development in recent years has created areas of housing, out-of-town shopping and commercial centres that are some distance apart. This pattern makes travel necessary to complete simple daily functions such as shopping, working and leisure. Those who do not have the ability to travel can be excluded from using the facilities they may need or enjoy.

7.3.3 Sustainable development requires a better distribution of facilities. Providing facilities where they are easily accessible will allow more journeys to be made on foot or by bicycle. Locating development that attracts large numbers of people in areas with good public transport links will enable those whose journey is too long for walking or cycling to travel by public transport. The use of telecommunications and information technology also has a role in enabling people to do the things they need and want to do, without having to travel. Mixed use developments, especially where residential development is included, can reduce the need to travel and increase the proportion of trips which can be made on foot.

7.3.4 Reducing the overall amount of travel, and encouraging people to choose the most appropriate mode of travel for each journey, can help to ease congestion. It will also ensure that movements that are essential for economic prosperity and the wellbeing of the community can be completed efficiently. ~~The council's desire to take a location-based approach to development planning is reflected in the Strategic Policy GLoc.~~ Large scale developments (such as major new retail or industrial proposals) will not be encouraged in areas of low accessibility unless measures to encourage access by a range of transport modes are put forward. In order to assess the suitability of a development proposal for a particular location in terms of accessibility, a methodology is required that will produce consistent and valid results. The methodology the council will use to measure the accessibility of a site by public transport is based on the Public Transport Accessibility Level (PTAL) model. However, this method will not be used exclusively when determining the accessibility of a site. The council will continue to work with Transport for London, the GLA and other suburban boroughs to develop a public transport accessibility methodology which reflects more accurately the actual patterns of movement that take place in Outer London. When considering the parking requirements of planning applications, the key determinants will be:

- PTAL;
- Location (i.e. is it a town centre);
- Parking stress (i.e. are there on-street parking conditions);
- Ease of access by cycling and walking; and
- Whether the proposal is a conversion of an existing use.

7.3.5 Measurement of walking accessibility will be assessed case-by-case, taking into account the distance people will walk for different types of journey. The overall assessment of accessibility will take into account factors such as the proposed use, the size and nature of the development's catchment area, the location and relative size of competing sites, and the suitability of transport links between the development and its catchment area.

Policy M1 – Transport Accessibility

The council will expect major development proposals with the potential for significant trip generation to be in locations which are, or will be made, highly accessible by a range of modes of transport, in particular public transport, walking and cycling. In assessing the suitability of such proposals, the council will make reference to established accessibility models and further refinements in consultation with strategic authorities.

Traffic Restraint

7.3.6 In recent years, traffic growth has occurred at an unsustainable rate. The volume of traffic on many roads is already at a level where congestion causes significant problems, and rather than simply slowing growth, positive action is required to reduce road traffic. The current situation in Inner London is significantly worse than that in Outer London, and prompted the introduction of the Congestion Charging Zone by the Mayor of London.

7.3.7 The council has traffic management duties under the Road Traffic Reduction Act 1997, and *The Mayor's Transport Strategy* has set a target of limiting traffic growth to 5% in Outer London between 2001 and 2011. This target can only be achieved through the co-operation and will of the whole community. The careful location of potentially polluting land uses, and planning measures to reduce road traffic and the need to travel, will help to minimise the impact of traffic on air quality. (Further details about air pollution are contained in the "Environmental Resources" chapter.) The generation of additional traffic by new development must be minimised. In many cases, some additional traffic cannot be avoided, but good location, design and management can reduce its amount and effect. In planning new development, its full impact on the whole transport system will need to be considered and where necessary, mitigation measures will be required. The following sections of this chapter cover some of the issues that need to be considered.

Policy M2 – Transport Impact Assessments

In considering planning applications for new development, the council will require developers to submit a full transport impact assessment in cases where it will have significant transport implications. This will include an analysis of accessibility by non-car modes of transport and measures to assist in meeting Barnet's traffic reduction targets.

Travel Plans and the Safer Routes to School Programme

7.3.8 Travel Plans are one of the many tools available for reducing road traffic (see the Glossary). By drawing-up these plans, organisations identify ways in which their employees, and in some cases customers, can be helped and encouraged to travel using methods other than the car. Measures can include:

- Provision of safe cycle parking facilities and showering facilities for cyclists;
- Recruiting staff or attracting customers from areas accessible by public transport; and
- The setting up of car-sharing registers.

7.3.9 There is also a need for Travel Plans to contain measurable outputs. Paragraph 90 in PPG13 states that these outputs can relate to targets in the local transport plan, and that Travel Plans should set out the arrangements for monitoring the progress of the plan, as well as the arrangements for enforcement in the event that agreed objectives are not met. The sites potentially generating the largest traffic flows are considered to be the first priority for implementing Travel Plans. Below a certain level of employment/trip generation, the value of a Travel Plan will be less. The council believes that Travel Plans have a significant role to play in achieving road traffic reduction. The council is developing a plan for its own employees and will encourage employers to voluntarily adopt plans themselves. In appropriate situations, through the use of planning obligations, the council will require occupiers of new developments to adopt and maintain Travel Plans. There is extensive guidance on developing Travel Plans, most notably *Using the Planning Process to Secure Travel Plans* produced by the Department for Transport in 2002.

Policy M3 – Travel Plans

For significant trip-generating developments, the council will require the occupier to develop, implement and maintain a satisfactory Travel Plan to minimise any increase in road traffic and encourage the use of transport modes other than the car. The council will lead by example with policies which help its employees.

7.3.10 The council has developed a 'Safer Routes to School' programme and the borough's schools are preparing their own Travel Plans to make access to schools safer, to discourage unnecessary car journeys to and from school and to discourage parking on main traffic routes (see also Barnet's Air Quality Action Plan).

Pedestrians and Cyclists

7.3.11 Journeys made on foot and by bicycle not only help to reduce road traffic but can also have health benefits. People who cycle to work gain, on average, two extra years of life. *The Mayor's Transport Strategy* notes that half of all trips made in London are under two miles, which is within cycling distance. Walking is an equally important means of transport and accounts for a quarter of all London's journeys, and is an important means of getting to and from public transport services.

7.3.12 The *London Plan* supports the need for improved facilities for pedestrian and cycling routes in London. A good quality street environment needs to be provided for pedestrians and cyclists, which includes:

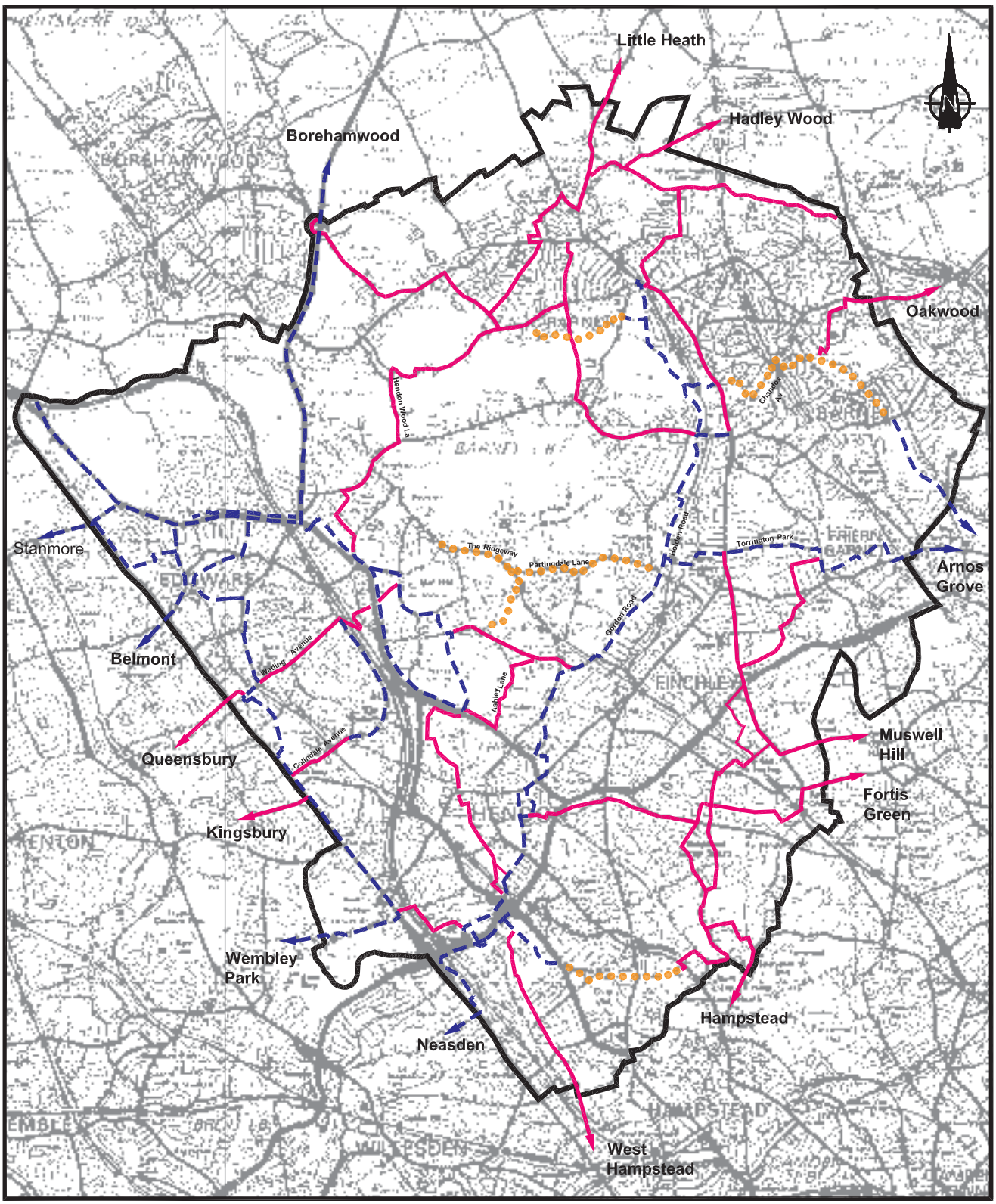
- Safe access routes;
- Crossing points with dropped kerbs and tactile paving; and
- Adequate, secure, appropriately-located cycle parking.

7.3.13 Where appropriate, showers, changing facilities and storage lockers should be provided. Improved street lighting is also important to make people feel safe when travelling after dark.

7.3.14 PPG13 stresses the importance of ensuring that jobs, shopping, leisure facilities and services are all accessible by public transport, walking and cycling. Reducing walking times can increase the pedestrian catchment area of a development. The council is developing a network of cycle routes in the borough, which is shown on Map 7.1. Developers may be able to encourage cycle use by providing links to this network, and other appropriate facilities to complement the London Cycle Network. Retailers can help and encourage customers to avoid travelling by car by providing a home delivery service.

Policy M4 – Pedestrians and Cyclists – Widening Opportunities

The council will identify and implement additional cycle routes, which are segregated from motorised traffic, in the location and design of new development. Developers will be expected to provide convenient, safe and secure facilities for those people wishing to travel by bicycle, and enable and encourage access to new developments by pedestrians and cyclists, maximising the pedestrian and cycle catchment area and the opportunities to travel on foot and by cycle. The council will promote the guidance identified in Transport for London's *London Cycling Action Plan* and encourage the provision of relevant sections of the London Cycle Network Plus.



EXISTING CYCLE ROUTE

PROPOSED CYCLE ROUTE

PART COMPLETE CYCLE ROUTE

Map 7.1 Cycle Routes

Policy M5 – Pedestrians and Cyclists – Improved Facilities

The council will require new developments to provide or fund adequate facilities for the safety and convenience of cyclists and pedestrians both on and off-site.

Public Transport

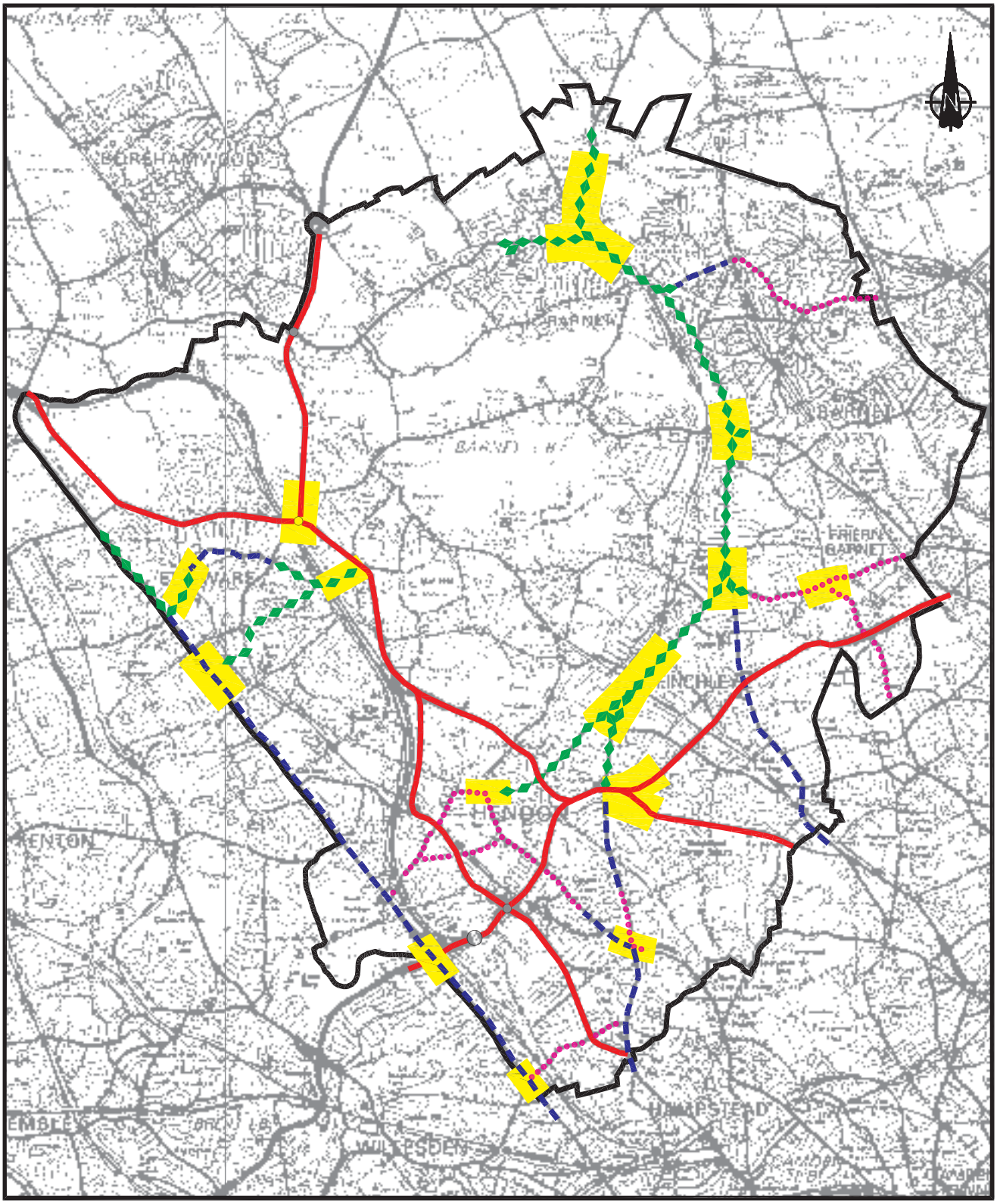
7.3.15 If a reduction in car use for journeys for which walking and cycling are not practical is to be achieved in London, there will need to be an increase in the use of public transport.

7.3.16 On mainline railways, the number of passenger kilometres fell nationally between 1988 and 1995 but then increased back to the 1988 level by the end of 1997. In London, with the exception of the North London Line, most mainline rail routes are radial, and outside Central London, passenger links between lines are poor.

7.3.17 New passenger services including the Heathrow Express from Paddington have been introduced or are being planned in the London area. The Thameslink upgrade programme, expected to be completed by 2016, will introduce new cross-London services passing through Barnet. It will improve the services on the western side of the borough and could significantly increase rail passenger traffic in the borough. The Brent Cross, Cricklewood and West Hendon redevelopment will create a new railway station at Cricklewood, integrated with facilities for other public transport services and key trip-generating sites within the development, by a rapid transport system. However, there are still concerns about services and stations on the eastern side.

7.3.18 Much of the London Underground system has suffered over the years from a lack of investment. However, recently the Northern Line which serves Barnet has received significant investment in new trains, improved signalling and station upgrades. Although this investment will bring greater punctuality and frequency of services in Barnet, sustained passenger growth means that at peak times the Underground system as a whole is operating close to capacity.

7.3.19 In contrast to the national trend, bus use in London (measured by passenger journeys) has continued to rise, with a 36% increase in the ten years to 2002/03. Outside London, passenger journeys decreased by 13% over the same period (although vehicle-kilometres were virtually unchanged). In many areas, bus services are impaired by road congestion. The *London Plan* states that boroughs' UDP policies should actively promote and give priority to the continued development of the London Bus Network. This includes the allocation of road space and the high levels of road priority required for buses on existing or proposed bus routes, and ensuring good bus access to and within town centres, major developments and residential areas. Across London bus lanes and other facilities have been introduced. The London Bus Priority Network in Barnet is shown on Map 7.2.



BUS PRIORITIES IMPLEMENTED TO APRIL 1999

PROPOSED IMPLEMENTATION 1999/2000/2001

PROPOSED IMPLEMENTATION LATER YEARS

PRIORITY (RED) ROUTE

IDENTIFIED BUS DELAY POINTS

Map 7.2 London Bus Priority Network

7.3.20 Coaches also have an important role to play in an integrated transport system. Scheduled express services can complement rail and bus services, and significant growth is expected in this sector. Coaches can be regarded as part of the public transport system and for some types of development, planning and providing for coaches will be necessary.

7.3.21 In general, the council will continue to press the operators for improvements to public transport services in the borough, in particular benefits from the Thameslink upgrade programme. But locating development in areas well served by public transport will lead to greater public transport use. Developers can also help this process by ensuring that sites are designed to make public transport easier to use. This could include providing carefully designed and sited bus stop lay-bys, boarders, shelters and other waiting facilities. Where appropriate, and in consultation with public transport providers, the council will seek Section 106 agreements to achieve improvements to public transport facilities and/or services.

Policy M6 – Public Transport – Use

Developments should be located and designed to make the use of public transport more attractive by providing improved access to existing facilities, and if necessary the development of new routes and services.

Policy M7 – Public Transport – Improvements

Where appropriate the council will expect development to contribute to achieving improvements to public transport services related to the proposed development, including better links, interchange facilities and waiting areas, and will give particular attention to the needs of people with disabilities, the elderly, women and people with young children.

Road Hierarchy

7.3.22 To help ensure that the road network can operate in a safe and efficient manner, it is important to meet the needs of different road users. The needs of drivers making long distance journeys (at relatively high speed with little interruption to flow) are generally incompatible with the needs of road users on shopping or residential streets. To resolve this conflict, different types of roads need to be provided. Within London, roads are classified into a three-tier hierarchy (which is shown on the Proposals Map) based on the functions they provide to road users and adjacent land uses. Through planning controls and traffic management measures, the council can make sure the roads in the network are used appropriately:

- Tier 1 of the hierarchy consists of strategic routes of national or regional importance. These provide the distributor network for longer distance vehicle movements, within the area bounded by M25/A282 and the connections from all parts of Greater London to the national road network. This tier includes all motorways, primary routes and Priority (Red) Routes. Strategic routes should be more attractive than other categories of roads to drivers making longer distance journeys. Kerbside waiting and loading restrictions, including Priority (Red) Route controls, are used to restrict obstructive parking and facilitate flow. Catering for through-traffic will normally have priority over access to adjacent land uses, however, in some locations existing development means that strategic routes must provide some of the access and loading functions of a lower-tier road.
- Tier 2 includes roads that provide a distributor function for London. These generally consist of 'A' roads not included in Tier 1, and their primary purpose is to attract and serve drivers making journeys between and across boroughs and to counties bordering Greater London. As a secondary function, London distributor roads generally have to provide access to adjacent land uses. The London Bus Priority Network is mainly located on London distributor roads. Where appropriate, local bus services will be given priority by the use of suitable measures with enforcement to ensure free flow.

- Tier 3 of the hierarchy consists of the local distributor and access roads that make up the remainder of the road network. The primary function of local distributor roads, generally those in class 'B' or 'C', is to cater for movement within the borough and commonly to provide access to adjacent land uses. Some types of frontage development are not compatible with the movement function of local distributor roads, especially near to critical junctions. Physical measures to control excess vehicle speeds may also be required – many access roads will be primarily for use by residents and pedestrians, and often the traffic functions will be less important than environmental concerns, so traffic calming measures to displace through-traffic may be required.

Policy M8 – Road Hierarchy

The council will take into account the function of adjacent roads and may refuse development proposals which would result in inappropriate road use, or adversely affect the operation of roads in the area.

Road Improvement Schemes

7.3.23 The majority of this chapter deals with policies that are intended to reduce road traffic to sustainable levels and ensure that traffic uses appropriate routes. The section on the road hierarchy discusses the importance of making routes of national or regional importance more attractive than other categories of roads to drivers making longer distance journeys. Since the strategic routes carry a disproportionate volume of traffic, which by its nature will not be replaced easily by public transport, it is important that adequate capacity is provided on these routes to ensure that they remain more attractive than adjacent, lower-tier roads.

7.3.24 Road improvements have been identified as a factor causing increased traffic growth in the medium-term. A balance needs to be found between the problem of adding to traffic and encouraging the use of the car, and the need to address severe problems caused by congestion on the strategic network. This balance will be found within an integrated transport system. The following major road improvement schemes, have been proposed either wholly or partially within Barnet in the past and may at some time be re-introduced:

- A406/A1/A598 Regents Park Road/North Circular Road junction improvement.
- A406/North Circular Road/Brent Street junction improvement.
- A406 North Circular Road – Bounds Green Road to Green Lanes road widening.
- A1/M1 Link Road at Scratchwood Services road improvement.

Policy M9 – Road Improvement Schemes

The council recognises the need for an efficient strategic road network in London as part of an integrated transport system. The council will support significant road improvement schemes as identified through the review of the road hierarchy in Barnet.

Reducing Traffic Impact in Residential Areas

7.3.25 The negative aspects of traffic can have a particularly severe impact on residential areas. Air and noise pollution, the danger of speeding traffic and the inconvenience caused by non-resident parking, have greater impacts in areas where more people live. Measures used to reduce traffic impact, such as traffic calming and road closures, can sometimes have unintended negative effects on the community and cause inconvenience. New development can attract traffic and the council will therefore consider the potential impact of such traffic on residential areas. Where necessary, and in partnership with the local community, the council will introduce measures to reduce the effects of such traffic on the environment and on residents. The council is especially concerned about the effects of through-traffic.

Policy M10 – Reducing Traffic Impact

Where it is considered necessary as a consequence of development, the council may introduce measures to reduce the effects of traffic on the environment and the community. Where the need for such measures is directly related to the development and any planning permission, the council will seek to secure a planning obligation from the developer.

Road Safety

7.3.26 In 1987, the government set a target of reducing the total number of road accident casualties by one-third by the year 2000 compared to a baseline of the period 1981 – 1985. By 1997, Barnet had achieved a reduction of 15.2% (against an average of 15.7% for Greater London). Even so, in 1997 there were 1,567 reported accidents with 1,890 casualties in the borough; fifteen of these casualties died. Pedestrian and cycle casualties accounted for 29% of total casualties in Greater London in 1997 and nearly 39% of fatal or serious injuries.

7.3.27 While improvements in the design and manufacture of vehicles have contributed towards a reduction in road casualties, driver behaviour is the major factor in causing accidents. Reduction of vehicle driver and passenger casualties relies to a certain extent on the modification of driver behaviour, which is very difficult to achieve, especially in the short-term. Pedestrians and cyclists are more vulnerable than other road users and even a minor accident can cause them serious injuries. Traffic management schemes have been targeted at reducing pedestrian and cyclist casualties by providing crossing facilities, cycle routes and junction improvements.

7.3.28 In planning new developments, the needs of vulnerable road users must be taken into account. The location of the development, access routes and the site layout need to be planned to ensure that all road users can travel to and from the site in safety. Particular consideration needs to be given to developments that will attract vulnerable road users (e.g. schools, care homes) and developments which can significantly increase the risk to vulnerable road users (e.g. LGV depots). Where necessary, suitable facilities to aid vulnerable road users, such as crossings, cycleways and footpaths, should be available and where necessary the council will seek funding for their provision from new developments.

Policy M11 – Safety of Road Users

The council will ensure that the safety of road users, particularly those at greater risk, is taken fully into account when considering development proposals.

Policy M12 – Safety of Road Network

The council will seek to reduce accidents by refusing development proposals that unacceptably increase conflicting movements on the road network or increase the risk, or perceived risk, to vulnerable road users.

Policy M13 – Safe Access to New Development

The council will expect developers to provide safe and suitable access for all road users (including pedestrians) to new developments. Where improvements or changes to the road network are directly related to the development and any planning permission, the council will seek to secure a planning obligation from the developer.

Parking

7.3.29 The availability of car parking at their destination has been identified as a significant factor in influencing people's travel choices. In the past, planning policies have required that adequate parking be provided in new developments to meet the maximum demand. However, this approach not only encourages car use, but also results in over-provision of parking for the majority of the time, which is an inefficient use of land. Many developments have been designed in a way that achieves the required parking provision, but does little to help or encourage other modes of travel.

7.3.30 Accepting that road traffic reduction is necessary to achieve sustainable development, the government considers that reducing the availability of parking will reduce car use. Consequently, emerging planning policies are developing a restraint-based approach to parking provision at non-residential sites. By providing less parking at a development site than is required at peak times (i.e. sub-demand), traffic growth will be restrained. The use of sub-demand levels of parking provision needs to take into account the existing provision, the use of non-car modes of travel in the area and the availability of on-street parking locally. Where facilities serving as an alternative to the car do not exist or are little used, and there is ample on-street parking, sub-demand parking provision would be ineffective as a traffic restraint tool and could result in significant displacement of parking.

7.3.31 The *London Plan* seeks to ensure that on-site car parking at new developments is the minimum necessary, because over-provision can undermine the use of more sustainable, non-car transport modes. The plan sets out a parking restraints policy that balances the desirability of reducing car use with the need to provide for attractive, viable town centres. It recognises that many people will continue to use their car for travel, particularly in the suburbs. In the most accessible locations there could be car-free development but less restrictive policies will generally be appropriate in suburban London. Appropriate parking for disabled people should always be provided and provision should also be made for bicycle and motorcycle parking.

7.3.32 The council's approach to parking provision is to accept the need for restraint, but to apply it with sensitivity to local circumstances. Parking standards will vary across the borough to reflect the accessibility of individual locations, based on:

- The public transport links to the site;
- The level of on-street parking controls;
- The population density in the surrounding area; and
- Any other relevant planning and highway considerations.

7.3.33 The standards will contain a degree of flexibility with the intention that a more restrictive provision will be expected as changes in people's habits occur and the infrastructure for non-car modes is developed. The car parking standards that apply to the borough are to be found in the *London Plan*, Annex 4 – *Parking Standards*, and will be subject to review within the lifetime of this Plan.

7.3.34 However, an exception is made in relation to residential car parking, for which the standards are laid out in this Plan and shown in Table 7.1 below:

Table 7.1: Residential Car Parking Standards Applying in Barnet

Prominent Housing Type	Number of Bedrooms	Car Parking Provision
Detached and semi-detached houses	Four or more bedrooms	2 to 1½ spaces per unit
Terraced houses and flats	Two to three bedrooms	1½ to 1 spaces per unit
Mostly flats	One bedroom	1 to less than 1 space per unit

7.3.35 In applying these standards, the council will exercise flexibility by taking account of locality, public transport accessibility and local parking stress. In assessing parking provision, the council will have regard to the likelihood of parking occurring on-street and any detrimental effect on highway conditions and road safety. The Public Transport Accessibility Levels (PTALs) for individual locations can be obtained from Transport for London (for example, see the "Cricklewood" chapter for more on car parking in that regeneration area). The council may wish to see complementary controls implemented to prevent displacement parking into the area surrounding a development. Where this is the case, the council will expect development to fully or partially-fund such controls.

Policy M14 – Parking Standards

The council will expect development to provide parking in accordance with the *London Plan* parking standards, except in the case of residential development, where the standards will be:

i. 2 to 1½ spaces per unit for detached and semi-detached houses;
ii. 1½ to 1 spaces per unit for terraced houses and flats; and
iii. 1 to less than 1 space per unit for development consisting mainly of flats.

Freight

7.3.36 The flexibility and lower cost of road transport has led to a switch from rail to road distribution of goods and materials. Nationally, rail freight measured in tonne-kilometres declined by approximately a quarter in the period 1988 to 1995 and although some growth has occurred since then, the majority of freight movement, even over long distances, continues to be by road. At a national level, attempts have been made to increase rail freight traffic, however, the slow speed of freight trains can interfere with passenger services and consequently the scope for increases in bulk freight are limited. In spite of this, rail freight has a significant role to play in reducing congestion and road traffic. A new rail freight facility is planned for the Cricklewood, Brent Cross and West Hendon Regeneration Area (for more information, see the "Cricklewood" chapter).

7.3.37 Many freight depots and goods yards in the country have become disused and have been lost to development. Without suitable facilities, the potential for rail freight will always be restricted. Strategically-located depots are required to permit freight transfer from rail to road, for local collection and delivery. Containerisation and "piggy-back" trains, which allow lorries to be loaded straight on, would permit a flexible and integrated freight distribution system.

Policy M15 – Rail Freight

The council will safeguard and encourage the development of rail freight-related sites at appropriate locations accessible by rail, and encourage the use of rail for the movement of bulk freight.

Lorries

7.3.38 Many commercial enterprises rely on deliveries to their premises in order to function. The council considers that a reduction in lorry movements would be beneficial within the overall aim of traffic reduction, but the needs of business must be taken into account when formulating policy. The council aims to balance the needs of commerce with the need to protect and enhance the environment.

7.3.39 Deliveries by lorry can cause noise and other nuisance to local communities, and at certain times of the day this can be unacceptable. At peak travel times, lorries can add to congestion. In town centres, lorries can degrade the shopping environment, particularly if on-street loading occurs. Therefore, planning conditions may be applied to new developments to control lorry movements, both through on-site facilities and controls on hours of operations.

Policy M16 – Lorries – Controls on Movements

The council will maintain and introduce controls, including lorry movement bans and width and/or weight restrictions, as required in order to prevent the use of unsuitable road routes by heavy goods vehicles where suitable alternative routes are available.

Policy M17 – Lorries – Deliveries and Servicing

Developments that require regular deliveries of goods, materials and/or equipment should be located in close proximity to Tier 1 and Tier 2 roads to avoid the need for lorries to use lower-tier roads, particularly through residential areas. Such developments should also be provided with adequate on-site facilities for loading, turning and waiting for goods vehicles. Planning conditions may be used to control the timing of deliveries.