



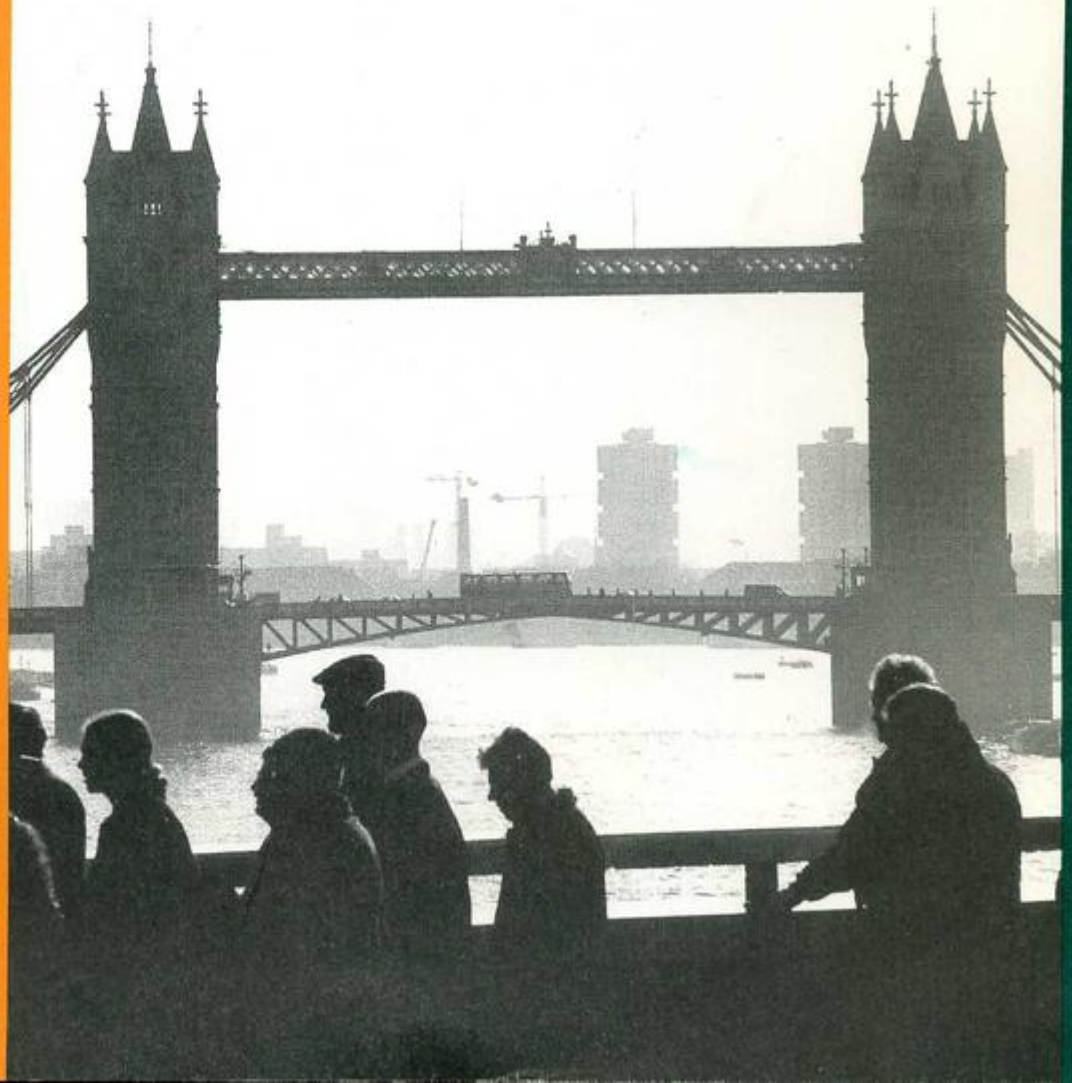
TIM PHAROAH

## **PUTTING LONDON BACK ON ITS FEET**

*The why, how and who of developing  
a strategy for walking in London*

**SUPPLEMENTARY  
TECHNICAL REPORT**

**SEPTEMBER 1996**



### **The London Planning Advisory Committee (LPAC)**

is the Boroughs' statutory planning committee for London. It was set up in 1986 by the Act which abolished the GLC. Its main role is to give Londoners, through their Borough representatives, a say in the overall planning of London. It does this by:

- advising government and Boroughs on strategic planning matters and major development proposals
- representing London in the regional planning of the South East
- advising government on parking policy.

LPAC is funded by the 32 London Boroughs and the Corporation of London. It has a staff of 22 (15 technical and 7 administrative) and works with Borough officers and with consultants.



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A study by the Metropolitan Transport Research Unit (MTRU) for LPAC, with financial co-sponsorship from London Transport and the Transport 2000 Trust.

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London Planning Advisory Committee  
Artillery House  
Artillery Row  
LONDON SW1P 1RT

Tel: 0171-222 2244  
Fax: 0171-222 2656  
Email: [lpac@lpac.gov.uk](mailto:lpac@lpac.gov.uk)  
Web: [www.lpac.gov.uk/](http://www.lpac.gov.uk/)

Chief Planner:  
Martin Simmons MA DipTP MRTPI

# MTRU

Metropolitan Transport Research Unit  
4 Netheravon Road  
LONDON W4 2NA

Tel: 0181-994 0900  
Fax: 0181-994 3591

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# 1 INTRODUCTION

## Content of this report

From the outset of this study it was clear that there was very little in the way of a precedent in London which could guide the setting up of a strategy for walking. It was therefore considered appropriate to make a brief review of practice elsewhere, to see what, if anything, could be learned. The first part of this supplementary technical report (Sections 2 and 3) summarises the results of the review, which was used extensively in the preparation of the main report. In London, information was gathered from the Boroughs direct, and from their most recent Unitary Development Plans and Transport Policies and Programme submissions. The results of this London analysis are set out in Section 4 of this report. A note on relevant background policy documents is given in Section 5.

The review is followed by an annotated list of some additional useful references not directly referred to in the text (Section 6), and a checklist of further issues and questions raised during the study process which are not considered in detail or resolved elsewhere (Section 7).

## Review of practice

In all, information was received from 28 cities and 10 countries, plus a number of organisations promoting the interests of pedestrians and/or people whose mobility is impaired.

The following general conclusions can be drawn:

- \* No city, apparently, has yet produced a comprehensive pedestrian strategy.
- \* Walking is mostly ignored or forgotten in most transport planning practice.
- \* Consideration of pedestrians is largely confined to solving specific road accident or road safety problems, or to the creation of pedestrian priority areas in city centres.
- \* Provision for pedestrians in Continental city centres is generally more extensive and to a higher standard than in most British city centres. The best practice is generally agreed to be found in northern Europe, namely Austria, Belgium, Denmark, Germany, the Netherlands and Switzerland. The efforts to reduce traffic in Italian cities such as Bologna and Florence also deserve mention.
- \* There are few examples of targets for increased walking as a mode of travel, though design strategies in some cities might be expected to have this result. Sometimes targets do not differentiate between walking and cycling.

**Some revealing quotes:**

"In about 600 reports and documents, assembled from all over the world in the course of this study...there is practically no mention of pedestrians." (J. Michael Thomson in "Great cities and their traffic", 1977)

"I am sorry to have come up with such limited information, but it seems that the knowledge on walking as a mode of travel is in desperate need of some improvement." (Jan van der Waard, Dutch Ministry of Transport, 1996)

"We aren't aware of German cities with special pedestrian strategies; walking is very often a 'forgotten mode'". (Erhard Erl, Socialdata, Munich, 1996)

"Most local authorities take a 'problems to be solved' approach rather than a 'goals to be achieved' approach to pedestrians", (Barry Louth, Local Authority Pedestrian Planning Group, 1996)

"The notion of trying to substitute car trips with pedestrian trips is rather recent in Denmark" (Jan Grubb Laursen, Technical University of Denmark)

"There is no real strategy for pedestrians in any of the London Unitary Development Plans" (Tim Johnson, LPAC, 1996)

## 2 REVIEW RESULTS: APPROACHES TO PEDESTRIAN PLANNING

An attempt was made to sort the material gathered into two categories. The first concerned what might be termed a reactive approach to pedestrians, including consideration of pedestrians when planning for vehicle traffic, tackling specific accident problems, and creating special areas for pedestrians from which vehicle traffic has been removed or reduced (usually city centres). The second concerned a more pro-active approach, including measures to enhance or increase walking as a mode of travel, both as a valuable activity in its own right, and as a means of reducing car use and car dependence.

It can be concluded with reasonable certainty that most current practice falls into the first category of "reactive" planning. No attempt has been made here to make a comprehensive review of this approach, since material on this, especially safety and pedestrianisation aspects, is both voluminous and fairly widely known. The remainder of this Section therefore concentrates on material which illustrates a more "pro-active" approach, though the boundary here is by no means distinct.

Information is given below under various headings, but it is worth noting that the best practice regarding the promotion of walking appears to be developing in Austria and Switzerland. This experience is promoted in particular by the associations for pedestrian rights in Austria (VCÖ) and Switzerland (ARF), whose recent handbooks contain much of interest and relevance to pedestrian planning.

This description is followed by a country by country summary of the material received during the review (Section 3).

The following is the summary of material reviewed:

- ***Components of a strategy***

No examples of a comprehensive strategy for walking were found.

- ***Targets, milestones***

Only a few places have adopted targets for walking.

Denmark has a general target to transfer 4% of car passenger and driver kilometres (equivalent to every third car trip of less than 3 kms) to cycling and walking by the year 2005. The intended transfer to walk alone is not identified.

York has target modal split for all work journeys with an origin or destination within the city, including an increase in the walk share from 13% to 14% (City of York Local Plan, deposit Draft, September 1995, p. 99)

Bremen, (Germany) intends to halt the decline in walking through its Integrated Transport Plan (1995).

Burgdorf (Switzerland) has embarked on a model project for pedestrian planning and set a target of increasing the mode share of walking by one third.

- *Pedestrian audit*

York carries out a pedestrian audit claimed to be a design as well as a safety audit.

Zürich has carried out a comprehensive audit of junction schemes to help pedestrians.

- *Safety enhancement, danger reduction*

Comprehensive speed management and traffic calming are important here. An example is Devon County Council's speed management framework (DCC, 1991) which classifies the road network according to the intended speed and priority, based on frontage activity as well as traffic function.

The Road Danger Reduction Forum (for which Leeds takes the lead role) argues for reduction of danger at source (i.e. motor vehicles) rather than survival strategies for pedestrians and cyclists. Their 1995 document contains a 6 point charter (Road Danger Reduction Forum, 1995). Camden is the only London authority amongst 38 signatories to the RDRF.

- *Security enhancement*

Security issues do not appear to feature prominently in other north European countries, or at least not in urban transport plans. However, work by Jan Gehl for the cities of Copenhagen, Melbourne, Perth, and Stockholm does address this issue in terms of city centre design for pedestrians.

Some local authorities in the UK (e.g. London Borough of Southwark) have produced design guidance related to security for new housing schemes, and research has been undertaken (e.g. by the Housing Research Foundation, 1989). There are apparently unresolved issues. The Jane Jacobs philosophy of maintaining permeable layouts and short and connected street blocks to reduce fear of crime appears to run counter to most current ideas of housing layout and design, which are based on minimising through routes and connections (with culs-de-sac). In the London context, there are further important issues, such as the recent trend towards "fortress" style housing with electronic gates, video surveillance and even paid guards.

- *Networks*

The definition of networks must be related to some purpose. All streets, roads and other public areas should (and usually do) provide pedestrian facilities, so the issue is likely to be more about the improvement of quality, and targeting of resources, than about increasing the size or density of the network.



In London a network of 10 recreational long-distance routes has been suggested by the Government Office for London (1995), while many Boroughs are implementing "Green Chain" walks (e.g. Greenwich).

In York, a pedestrian route network has been adopted showing:

- routes to the city centre
- routes to shops, schools etc.
- routes between residential areas
- routes to the countryside and leisure activities

The purpose of this network appears to be to identify priorities for spending to bring pedestrian facilities up to a high standard.

In Switzerland, local authorities are required by federal law to produce urban pedestrian networks which link up with rural recreational networks.

In Zwijndrecht (a district of Dordrecht, Netherlands) networks have been defined in relation to schools, bus stops, and recreation areas, with traffic signal junctions related to these networks. The approach is based on the improvement of traffic safety, social safety and overall design.

- ***Pedestrian Places***

In London, the Central London Partnership has highlighted 80 potential zones or locations deserving of improvement for pedestrians. Efforts have been made over the years, and still continue, to achieve pedestrianisation of parts of some of London's key squares; Trafalgar Square and Parliament Square will be the subject of a new study. Suburban town centres also have pedestrianised shopping areas, for example Barking, Croydon, and Kingston.

Perhaps the best information on creating a pedestrian-friendly city centre comes from Copenhagen (see box on page 8 in main report).

- ***Priorities***

Some cities have defined an order of priority for different classes of road traffic, though it is not always clear what such a list achieves in practice.

York places pedestrians at the top of the list, followed by those with disabilities, then cyclists, then public transport users.

While acknowledging top priority status for pedestrians, both Oxford and Zürich place public transport users ahead of cyclists.

- ***Standards***

Brussels has a by-law which specifies a minimum footway width of 1.5 m and a

minimum clearance under awnings etc. of 2.2 m.

York has specified a range of standards for its pedestrian route network.

Camden has also drafted minimum pavement widths for inclusion in its UDP.

- ***Public involvement***

Zürich invited people throughout the city to name specific places where they found walking difficult, and subsequently drew up a comprehensive improvement programme, mainly for junctions.

In Witney (Oxfordshire) local disability groups are assisting in the identification of problem locations based on the recognition that good conditions for wheelchair users will automatically mean good quality provision for all pedestrians.

In Oregon, public involvement is the first of several state-wide planning goals, and is practised at all levels of planning activity, including decisions about zoning laws to make development more pedestrian-friendly.

- ***"Soft" policies***

These are measures designed to influence behaviour not involving infrastructure changes. Included will be awareness campaigns (such as "Travelwise" and "Headstart", and "mobility management" schemes now starting to be used in Germany and Switzerland.

- ***Signposting***

In the Netherlands, there are proposals for uniform signing of pedestrian routes, along the lines already adopted for car drivers.

- ***Design guidance***

Brussels has design guidance for its public spaces which is intended to make them more attractive for pedestrians.

Edinburgh has produced a streetscape manual which could have similar impact.

In London, Richmond and Westminster have produced their own street design manuals, and one is in preparation as part of Brixton City Challenge.

Sweden has produced national guidelines as part of achieving its "Streets for All" policy.

Other guidance is available on the design and creation of pedestrianised shopping streets, including some produced by the Institution of Highways and Transportation.

- *Land use planning*

Although not specifically adopted for the purpose of increasing walking, the Netherlands "compact city" policies may be expected to be favourable to walking. There is a growing literature on what the policies mean in practice, and how effective they will be in reducing car dependence.

In Britain, planning policy to reduce the need to travel has recently become firmer and local authorities are beginning to gain experience of its operation. However, few examples of land use planning to increase the feasibility or quality of walking were found.

Although the city has a low proportion of trips on foot, Portland (Oregon) plans to increase walking through land use planning, both as an access mode, and as a sub-mode for increased public transport use. Amongst the measures being taken are the "densification" of suburban centres, and of locations accessible by public transport. Amendment of local zoning ordinances is planned to orientate development towards pedestrians, e.g. buildings must front directly onto the footway, not sited behind a parking lot. All of this is within the context of a target of reducing car traffic by 10% within 20 years.

- *Development gains, taxes, incentives*

Fiscal and other measures can be used to attract development of the right type to locations favourable for access on foot and by public transport. Such measures are used, for example, in Toronto and Portland (Oregon).

- *Car-free and Car-reduced developments*

Examples can be found (at planning or construction stage) in Amsterdam, Bremen, Berlin, Tübingen and several other German cities. In the UK, Edinburgh is planning car-free housing schemes, whilst Cambridge has considered them. In London there is much housing without off-street parking, for example the Wardour Street development (City of Westminster).

Residents in such developments are likely to own less cars, and therefore use other modes more, including walking.

### 3 COUNTRY BY COUNTRY ANALYSIS

As well as grouping pro-active policies under the headings in the previous section, a brief summary of key material received by place of origin is set out below.

#### **AUSTRALIA**

Studies by Prof. Jan Gehl of the centres of Perth and Melbourne provide useful guidance on how to analyse the quality of walking environments.

Melbourne has produced a draft pedestrian strategy, but this covers only public spaces in the central area. Measures proposed include widening footpaths, better crossing facilities at junctions, pedestrian under- and over-passes, lunch time closures of "little" streets, and ongoing data collection.

#### **DENMARK**

##### **General**

Danish experience is mostly in the field of pedestrian precincts in city centres and access routes to schools. The concept of increasing walking in the mode share as a contribution to traffic reduction is not yet developed. There is, however, related experience in traffic calming and cycle provision.

The Danish government has issued a "Transport and environment action plan" (also known as "Traffic 2005") which includes targets to help stabilise and then reduce transport emissions. These are:

- \* A transfer of 4% of car driver and passenger kilometres (equivalent to every third trip under 3kms transferring to walk or cycle, increasing travel by these modes by 40-50%);
- \* A 50% increase in train and bus kilometres;
- \* A 5% increase in average car occupancy.

Unfortunately the research into the implementation of these targets excluded separate consideration of walking (Danish Road Directorate report 17, 1995).

The Danish towns of Fredericia and Frederikshavn have undertaken projects on routes for people with a disability, and direction signing.

The Technical University of Denmark is participating in an EU "Adonis" project to identify pedestrian-friendly facilities and their effects, in collaboration with the cities of Amsterdam, Brussels and Barcelona.



## **Copenhagen**

Most of the pedestrian planning attention has been focused on the city centre, but very interesting longitudinal data is available due mainly to the efforts of Jan Gehl. Pedestrian activity has been measured systematically since 1968 and can be related to developments in pedestrian provision. Activity is divided between walking and active use of public space. Walking (in the centre) has remained roughly stable since 1968, perhaps reflecting the fact that the main pedestrian thoroughfares have been congested throughout that period, and that no new pedestrianised streets have been added since 1973.

By contrast, active use of public space has increased by more than three times over the same period, reflecting the double policy of reducing traffic and parking, and converting space for use by people. Most of the increases in public space have been in the form of squares formerly taken up with traffic and parking. The increase in the number of people using public space in the centre corresponds closely to the increase in square metres made available for the purpose. Thus the number of people per 100 square metres of pedestrian space has remained stable at about 8.3, but the increase in such space (from 20,500 to 71,000 sq. m. between 1968 and 1995) has led to a 337% increase in people.

This increase is related to cultural as well as demographic changes in the city.

## **EUROPEAN UNION**

The European Parliament approved a European Charter for Pedestrians in October 1988.

The eight-point charter is believed to be not very widely known (but see item on Barcelona below). Nevertheless it offers a fairly radical perspective in which the rights of vulnerable road users are seen as basic to the quality and civility of urban areas. Regarding pedestrian areas, the charter warns against providing just "pedestrian precincts", and argues for areas "in harmony with the overall organisation of the town". Also advocated is the French system of legal liability in which the person creating the risk (i.e. motor vehicle driver) bears the financial consequences of a collision with a pedestrian.

## **FRANCE**

### **Paris**

Good data are available for both the city of Paris and the Ile-de-France region from Enquete Globale des Transport (EGT). Between 1976 and 1991, trips per person (over 6 years old) remained stable (at 3.49 per day), but motorised trips increased at the expense of trips on foot. Trips on foot declined by 19% during the 15 year period. Trips by public transport increased slightly.

### Paris: Trips per person per day

MODES	1976	1983	1991
Public Transport	0.68	0.69	0.70
Car	1.13	1.31	1.51
Two-wheel	0.19	1.10	0.07
Other motorised	0.04	0.04	0.03
Walk	1.45	1.33	1.18
Total	3.49	3.47	3.49

The decline of walking is apparent by residents of the city of Paris, and of the suburban rings (Petite et Grand Couronne):

### Paris: Walking trips per person per day

AREA	1976	1983	1991
City of Paris	1.90	1.73	1.66
Inner Suburban	1.40	1.35	1.23
Outer Suburban	1.22	1.07	0.91
Region (Total)	1.45	1.33	1.18

Within this decline, there are marked variations by trip purpose. Walking to school and for leisure and recreation has increased, while walking to work, on business, and other purposes has declined.

Public transport fare policy (monthly pass) has resulted in people using public transport even for short hops.

The City of Paris has pedestrianised a large area of the centre around Les Halles, and since 1992 has implemented a pedestrian priority zone comprising 2.3 km of footways in the quartier Montorgueil (2nd Arrondissement). A further eight neighbourhoods are being studied. The city is also (1996) launching a policy to enhance major "leisure walk routes". (Source: Mairie de Paris, June 1996)

Traffic has been banned from several streets on Sundays, reportedly the most popular measure introduced by the new Mayor - Mr Tiberi - since he came to office in May 1995 (Guardian 15/6/96).

Otherwise it is reported that the city "does not try very hard to incite motorists to shift to softer modes of transport". Its parking policy, for example, is supply oriented (minimum rather than maximum thresholds for parking space to be provided in new real estate development. (Source Jean-Francoise Allouche, Syndicat des Transports Parisiens)

## **GERMANY**

### **Bremen**

The Integrated Transport Plan (1995) aims to reduce the rate at which walking is declining. Measures include more green time for pedestrians at signal crossings, and to provide a more pedestrian-friendly street environment (intensively in inner city, plus traffic calming elsewhere. Innovation is to provide "all ways" pedestrian lights at junctions - a test scheme is planned at junction of Am Dobben and Humboldtstrasse (just to the east of city centre).

Freie Hansestadt Bremen, "Integrative Verkehrsplanung: Ergebnisse der Szenarien", Bremen 1995.

### **Heidelberg**

Produced a "reader" on the current state of knowledge on pedestrian traffic in the city as basis for a workshop. This contains 92 references.

"Reader: zum aktuellen Forschungs- und Erkenntnisstand 'Fussgängerverkehr'", produced by BSV, GmbH, Aachen, December 1995.

This led to production of planning guidelines for walking (with 18 references). The guidelines include the following measures/objectives:

#### **Group 1**

- \* Support residential function in inner city and suburban centres;
- \* Improve residential environment through street design, traffic calming, residents parking, prevention of footway parking;
- \* Create pedestrian friendly conditions between all pedestrian origins and destinations, for all people, by supporting small-scale retail and industrial activities, decentralised schools, local recreational areas;
- \* Consequent consideration for road safety, avoidance of detours, social safety, conditions for those with a disability.

#### **Group 2**

- \* High accessibility and interchange quality for public transport, including passenger-friendly stop design, uniform ticketing, etc.
- \* Separate cycle network
- \* Comprehensive parking policy for areas with intensive parking demand;
- \* Support car-free (and car reduced) areas.

### Group 3

- \* Local involvement ("transparent" planning);
- \* Publish children's route maps, pedestrian city map, disabled city map

They also propose re-planning to make parking no closer to homes than public transport.

Further relevant material produced was:

- \* A map of pedestrian problems in Heidelberg. These include: inadequate width, inadequate links, problematic diffuse crossings, problematic crossings, problematic bus stops, incomplete pedestrian facilities at light-controlled crossings.
- \* Detailed guidance on children's routes.
- \* Table of comfortable and maximum distances from home to various destinations.
- \* Table of measures and dimensions appropriate to different circumstances.

BSV GmbH, "Planungsgrundsätze für den Fussgängerverkehr in Heidelberg", Aachen, April 1996.

### **Munich**

The city conducted a research project about deficits and potential improvements of pedestrian traffic in larger cities.

City of Munich, "Defizite und Förderungsmöglichkeiten grossstädtischen Fussgängerverkehrs als Teil des Umweltverbund", FA Nr. 70.461.

### **Ravensburg**

The city has been selected for a model project on pedestrian-friendly planning by the state of Baden-Württemberg.

## **NETHERLANDS**

### **General**

#### *Under reporting of walking*

Nelly Kalfs (of the Dutch Ministry of Transport) writes that the travel diary approach of surveys by the pedestrians association (VBV) has been found to be "a very valuable tool in showing how important walking as a mode of travel is in the modal split". The VBV research found results that were quite different from those



produced from the Dutch National Travel Survey. Two examples of how significant this difference can be are shown in the following Table.

#### Netherlands pedestrian survey methods compared

		VBV diary		National Travel Survey	
1	Time (minutes per day)	Min	%	Min	%
	Walking	27	37	12	15
	Cycling	17	23	17	20
	Public transport	8	11	11	15
	Car	21	29	40	50
	Total	73	100	80	100
2	Trips person/day by distance km				
	<1	1.0	25	0.5	15
	1 - 2.5	1.1	27	0.9	25
	2.5 - 5	0.7	18	0.6	17
	5 - 10	0.5	13	0.6	17
	10 -20	0.3	7	0.4	12
	> 20	0.4	9	0.5	15
	Total	4	(99)	3.5	(101)

#### Signposting

A report on signposting for pedestrians argues that "there is a growing need for a uniform system of signposting for pedestrians which is easily recognisable and comprehensible to those unfamiliar with any particular area." Two approaches are described, "Individual marking", with each destination given an independent set of signs from origins; and "object route marking", in which a route is marked (e.g. "museum route"), with the nearest objects to this route constantly posted. The latter system is likened to parking routes for car drivers. (CROW "Wegwijzers maken voetgangers wegwijs", Ede, Netherlands, 1994.)

#### Amsterdam

The city has adopted a number of street "profiles", which provide standard allocations of street space between carriageway, shared-space, footway and parking. The identification of "default" widths and designs for various street types helps in securing improvements either as part of schemes, or as part of routine maintenance and rebuilding programmes. (Pharoah and Apel, 1995)

## **Gouda**

The town was the subject of a demonstration project on provision for people with impaired mobility and sight. The results were used to provide national recommendations for design and standards of provision.

## **Zwijndrecht (district of Dordrecht)**

Networks have been defined in relation to schools, bus stops, and recreation areas. These networks coincide to some extent, producing a core network. Places where the networks cross traffic routes are targeted for improvement, for example with traffic signal junctions. The approach is based on the improvement of traffic safety, social safety and overall design, but may also be expected to increase the propensity to walk.

## **SPAIN**

### **Barcelona**

The Association for Pedestrian Rights (Camina) is preparing material on pedestrian strategies.

Meanwhile, the Mayor of Barcelona, who is also President of the European Council of Municipalities (CEMR), is recommending that other authorities follow the lead of Barcelona by adopting the European Pedestrian Charter, which was approved by the European Parliament in 1988. In an address to the CEMR, Pasqual Maragall said:

"The European Union is increasingly involved and dedicated to the improvement of the urban environment and the protection of pedestrian circulation may contribute not only to public welfare, but also to the rehabilitation of public spaces and the protection of historical-cultural patrimony and the environment."

## **SWITZERLAND**

### **General**

The Swiss association for the rights of pedestrians (ARF) supplied the following information: The accepted wisdom is that the best practical guide to planning for pedestrians is that produced by the Austrian Verkehrsclub (VCÖ) based in Vienna. VCÖ (1993) "Vorrang für Füssganger".

Almost twenty years ago, the Swiss voted in a referendum on a proposal to guarantee a network of footpaths linking all important destinations. This received

large majority support, because of the popularity of hiking. This provided a constitutional basis for pedestrian planning in Switzerland. Since October 1985 Kantons and Municipalities have been obliged by law (Bundesgesetz über Fuss- und Wanderweg) to provide a network for hikers and pedestrians. The ARF as a result of this gets Federal funding to encourage and promote action on this. To the best of our knowledge, no other country places such duties on local authorities (though it is being discussed in Austria).

Why is it that the best guidance (and perhaps practice also) comes from the Alpine countries? It seems that the importance of walking in these countries as a means of recreation has meant that there is more sensitivity to the issues of walking in urban areas as well.

Targets are valuable in promoting action. For example, a new "model city" project in Burgdorf (population 15,000), has a target to increase the walk share by one third, and the cycle share by one quarter. However, there are extreme difficulties in measuring the achievement of such targets because of poor data. In particular, shorter walk trips, and many trip stages on foot, are not recorded in surveys: e.g. short walk to the bus stop, and short walks between, say, the dentist and the shops, are not recorded.

Following improvements to the Swiss "microcensus", the proportion of trips made on foot is 30% and not 20% as previously reported. Improved surveys in Zürich have led to the finding that walking accounts for 50% of trip stages. Nevertheless, the methodology is still thought to be inadequate, and the ARF believes that half of all walk trips may go unrecorded. Further survey improvements are needed since changes in the walk share cannot be monitored if the baseline data are inaccurate.

In Switzerland, walking is becoming more and more of an issue, and people are starting to press for improvements in urban areas. Some action is being taken, encouraged by the promotional work of the ARF, and the following are some examples.

### **Basel**

The city has defined the main foot network, down to the level of the neighbourhood, and this is related to safety criteria.

### **Burgdorf**

This town of 15,000 people has been selected for a "model city" project involving measures to bring about a substantial improvement in walking conditions, and to increase the walk share of trips by one third (and cycle share by one quarter). This is being funded from the "Energy 2000" initiative, a Swiss Federal programme which followed the public rejection of nuclear power, and the consequent decision to limit demand for energy rather than increase supply.

## Geneva

A "Plan des Pietons" has been produced which looks at particular locations, and connections between them. The city government is publicising and promoting the initiative.

## Zürich

The city has promoted traffic calming, pedestrianisation and other pedestrian-friendly measures for many years. The city government asked the population to name specific locations where they wanted to see improvements for pedestrians, and received hundreds of answers. The city is now gradually implementing schemes at these locations (see below). The main person responsible for these initiatives (Asbacher) is now president of the ARF.

A review of pedestrian planning 1988-1992 covers the following topics:

More green time at signals; more green in the streets; wider pedestrian crossings; area-wide traffic calming; signals co-ordinated with public transport stops; footway parking; conflict with cyclists; overall public realm design; creating missing pedestrian links.

The review included statistics for each district of the city, giving the number of locations improved, by type of improvement (signals, footway parking, traffic calming, cycling, other). Map reveals that action has been taken or planned throughout the city, including suburban and industrial areas.

(Stadtplanungsamt Zürich "Zu Fuss in Zürich 1988-1992", 1993).

Traffic policy in the city includes pedestrians. This includes the planning of a pedestrian network (alongside a traffic/parking network and the public transport network). Improving conditions for walking is seen as essential to make public transport attractive. "Higher quality public transport begins with pedestrian-friendly measures." In 1988 SFr1.85 million was approved for the planning work. Cycle planning is also undertaken.

(Stadt Zürich, "Verkehrspolitik der Stadt Zürich", March 1994).

Extension of pedestrian inner city. Extent of pedestrianisation to be roughly doubled. Entire historic centre to be pedestrianised, involving closing remaining riverside route, and other city centre roads. Access will be possible from boundary routes into 9 traffic cells (bags). The planning takes into account shopping, leisure and other functions, and the creation of attractive spaces, and access to and from parking garages.

(Verkehrsplanung, Tiefbau- und Entsorgungsdepartement Zürich, "Erweiterung der Fussgängerzone in der Innenstadt", March 1996).



Public opinion surveys in 1994 show strong support amongst city residents for better walking and cycling conditions (90%) and general traffic reduction (76%).

(Stadtplanungsamt Zürich, "Die Verkehrspolitik im Urteil der Züricherinnen und Züricher, 1988-1994", Zürich 1994).

Extensive data on travel, including all walk trips. In 1992, 28% of residents' trips were entirely on foot, amounting to 10% of kilometres travelled. 6% of all car trips were less than 1 km, and 29% were less than 3 km (i.e. easy to walk or cycle). The presence of local facilities is reflected in the fact that 46% of shopping trips and 36% of education trips are less than 1 km. On average, people spend 64 minutes per day travelling, of which 30 minutes are spent on foot. 21% of pedestrians carry a case/bag/load, compared to 15% of public transport users, 13% of car drivers, and 22% of car passengers. 72% of all trips are single-purpose. Only 13% of trips have more than 2 purposes. Estimated that 15% of car trips could transfer to foot, and a further 37% could transfer to cycle or public transport (figures relate to internal traffic).

(Socialdata GmbH, "Mobilität in Zürich:", [vol 1 Verhalten, vol 2 Einschätzungen, vol 3 Potentiale], Bauamt 1 der Stadt Zürich 1992. (Mobility in Zürich Behaviour, Analysis, Potential))

There is a foot and cycle network plan which seems to be for longer distance walking, but "new" routes are planned connecting to the inner city.

(Stadtplanungsamt Zürich, "Richtplan der Region Stadt Zürich", Public edition, 1996).

## **UNITED KINGDOM**

**Birmingham:** Phase 1 pedestrianisation of New Street cost £6.7 million, has led to increase of 12 hour pedestrian flows from 31,000 in 1990 to 42,000 in 1995. Rental levels for some shops have increased 40% in a year. (Local Transport Today 1/2/96)

**Canterbury:** following success of the pedestrianised historic core, pedestrian priority is to be extended to the entire city centre within the walls.

**Edinburgh:** is examining new pedestrian links between old and new town, including a possible mechanised link.

**Kingston:** surveys undertaken before and after the pedestrianisation of the main shopping centre indicated increased popularity and usage.

**Leeds:** the City Council is developing a pedestrian strategy and intends to appoint a full-time pedestrian officer. A study in the city found that 70% of signal

junctions had no pedestrian phase.

**Richmond:** urban design group produced a Street Design Guide which covers design principles, signs, street furniture, traffic calming and tree planting.

**London:** eight town centres have adopted Shopmobility schemes. The national federation promotes schemes to provide mobility assistance in town centres, and argues that these are especially necessary in pedestrianised centres.

**Strathclyde/Glasgow:** issued a guide to walking and cycling, part of campaign to increase walk and cycle commuter trips by 3% by year 2000.

**York:** a pedestrian route network has been adopted showing:

routes to the city centre

routes to shops, schools etc.

routes between residential areas

routes to the countryside and leisure activities

The purpose of this network appears to be to identify priorities for spending to bring pedestrian facilities up to a high standard.

The city has a target modal split for all work journeys with an origin or destination within the city, including an increase in the walk share from 13% to 14% (City of York Local Plan, deposit Draft, September 1995, p. 99)

Standards for the network have been set out, and a pedestrian audit of schemes is related to design as well as safety.

## ***U.S.A***

### **Portland, Oregon**

The city aims to increase walking through land use planning, both as an access mode, and as a sub-mode for increased public transport use. It has undertaken surveys which indicated a strong correlation between density and mixed use and pedestrian activity. Land use strategy includes transit orientated developments (TOD) at light rail and bus nodes, including new suburban centres. Amendment of local zoning ordinances is planned to orientate development towards pedestrians, e.g. buildings must front directly onto the footway, not sited behind a parking lot.

Portland has classified areas by pedestrian convenience, using four factors, each graded good, indifferent, bad:

1. Ease of crossing street
2. Presence of footways

3. Are streets interconnected? (or long with no turns)
4. Topography.

Their studies found that car use was lower and walking/transit higher in pedestrian-friendly areas.

### **San Francisco, California**

The US Federal Intermodal Surface Transportation Efficiency Act of 1991 requires States to spend 10% of the new Surface Transportation Programme budget on "enhancement activities". These include creative attractive settings for transport facilities, preserving historic transport sites, and expanding the range of travel options for pedestrians and cyclists. In developing the San Francisco Bay Area's programme, the Metropolitan Transportation Commission (MTC) learned to look at transport facilities in a new light, and also forged new partnerships with state and a myriad local agencies, special districts and community groups.

Eisen, V. A., Murray, D. G. and Eliot, A; "Developing enhancements program in San Francisco Bay Area", Transportation Research Board (Record 1444), 1994.

#### 4 LOCAL AUTHORITIES IN LONDON

##### A SUMMARY OF BOROUGH POLICIES AND PROGRAMMES

These summaries are based on the Transport Policies and Programme submissions for 1996-1997, together with additional information sent by 22 of the 33 boroughs in reply to a letter from MTRU dated 24 April 1996.

The following boroughs sent additional information:

Barnet  
Barking and Dagenham  
Bromley  
Camden  
Corporation of London  
Croydon  
Ealing  
Enfield  
Hackney  
Harrow  
Hammersmith & Fulham  
Haringey  
Havering  
Hillingdon  
Hounslow  
Kingston upon Thames  
Lewisham  
Newham  
Redbridge  
Richmond upon Thames  
Wandsworth  
Westminster



## **Barking & Dagenham**

The borough emphasises policy arising from PPG 13:

- To reduced growth in the length and number of motorised journeys:
- To encourage alternatives which have less environmental impact
- To reduce reliance on the private car

The borough's own priorities are

- 1) Improved conditions for pedestrians
- 2) Restrain traffic
- 3) Encourage cycling and improve conditions
- 4) Traffic management to give priority to vulnerable road users and public transport
- 5) Removal of freight from residential areas and transfer to rail and water.

Pedestrian policy is based on safety, security, convenience and accessibility. The policy includes safe crossings, opposition to bridges and subways, 'restraint' of street furniture, pedestrianisation of major shopping streets and direction signs.

The programme includes improved footpaths to secondary shopping areas, pedestrian crossings and secondary street lighting. Future proposals are Safer Journeys to School, a greenway leisure trail, a Thames pathway along Barking Reach and a hope for a light transit system.

## **Barnet**

Barnet is preparing a new transport strategy and fundamentally reviewing the Unitary Development Plan to reduce reliance on the motor car and take account of Agenda 21 and sustainability.

The borough remains opposed to the North Circular enlargements and recognises an urgent need to curb and remove the annoyance and delay caused by the high level of through traffic and of local traffic brought about by the borough's high car ownership levels.

The present policy includes:

- 1) Encouraging vehicles to make the fullest use of the strategic road network
- 2) Regulation of parking
- 3) Improve public transport
- 4) Encourage facilities for cyclists and pedestrians.

The TPP states that it is sometimes possible to obtain improvements in the quality of life in an area by a combination of traffic management within the area and/or improvements to the main road network around the perimeter.

For pedestrians Barnet's policy is to improve facilities, reduce walking times, improve the pedestrian environment and minimise risk. The borough supports the Association of Metropolitan Authorities' initiative in A Step Ahead - Improving the Residential Environment.

Ideally, effective segregation is desirable. The council is reviewing the management of some of its major town centres and walkways will be considered where appropriate. Meanwhile the borough will continue to encourage the Department of Transport to provide grade separated crossing facilities where appropriate. Pedestrians will be specifically catered for in future road and junction improvement schemes supported by the council.

Barnet has adopted a policy to designate Metropolitan Walks providing long distance way-marked footpath links.

### **Bexley**

While recognising that road traffic can have a detrimental impact on the quality of life, Bexley will remain heavily reliant on road transport (particular the private car) in the short to medium term because of the inadequacies in London's public transport. 52% of the population travel to work by car.

The strategy is

- 1) To improve the environment by taking traffic out of unsuitable areas
- 2) To improve the strategic road network for essential traffic
- 3) To improve road safety for all road users
- 4) To seek improvements to public transport
- 5) To locate high trip generating developments near to good public transport facilities
- 6) To improve facilities for pedestrians, cyclists and the disabled and support alternatives to the private car
- 7) To provide sufficient car parking to ensure that the borough's town centres remain attractive in relation to out of town developments

A proposal for Crayford Industrial Link Road was considered by the Unitary Development Plan Inspector as inappropriate development in the green belt.

The borough proposes to construct the Erith - Thamesmead spine road to relieve congestion and the Bexley by-pass to relieve residential areas and the town centre of traffic congestion

Consideration is being given to extending pedestrianisation in Erith and Bexley town centres as part of wider traffic management schemes. The TPP states that the council pays particular attention to the needs of pedestrians.

## Brent

Brent aims to improve the environment, regeneration and access and gives priority to public transport and restraint on demand for car travel to bring about a modal shift. The reduced need for car travel to be brought about by substantially increasing public transport accessibility and improving conditions for cycling and pedestrian travel.

The TPP also states that:- "It is considered that a transport strategy for the borough could be developed using Wembley as its heart."

With reference to walking the TPP points out that there are no significant areas of pedestrianisation and the footway maintenance programme has been severely constrained in recent years due to limited available funds, but that street furniture should be sited so that it does not create additional difficulties.

## Bromley

Bromley's objectives are:

- to provide a safe and efficient highway network
- to restrict inessential traffic
- to improve public transport
- to provide a reasonable level of car parking in town centres
- to improve facilities for vulnerable road users (people with disabilities, cyclists, pedestrians and horse riders).

Bromley intends road enlargements on the A21 and A232 to deal with capacity problems and further reduce delays. The council will consider more measures such as bus lanes - however the effect of such measures needs careful evaluation to ensure that additional congestion does not offset potential benefits.

The programme includes identification of suitable sites in Bromley Town Centre for public car parks. Use of land from Hayes Common and an SSSI to significantly increase the capacity of the A232, the extension of closed circuit television to Orpington and Beckenham and consideration of an all year round Park and Ride scheme to Bromley town centre which was first tried at Christmas 1994.

The major concerns of pedestrians are noted as being danger and difficulty of crossing roads. Pelican crossings are being installed following the demand being proven. Lighting and footway refurbishment is intended to improve areas of greatest need.

## Corporation of London

The Corporation intends to:

- encourage additional and improved public transport;
- reduce through traffic and encourage restraint of motor vehicles, particularly car commuting, including the possibility of road pricing;
- assign traffic to the secondary road network by traffic management and
- improve efficiency on the network including by acquisition of land and road widening.

For pedestrians, the city will concentrate on improvements at street level and traffic management with only limited proposals for consolidating the upper level walkways which are centred on the Barbican.

Closure of alleys and lanes will normally be refused in development schemes. The Corporation will give due consideration to the improvement of pedestrian facilities at street level within the proposed highway improvements and traffic management schemes and as individual initiatives elsewhere.

In addition the Corporation intends to ensure completion and improvement of the riverside walkway using all powers available to it and to pursue a policy of Environmental Improvement Areas which promote pedestrian safety and develop street scenes appropriate to the historic and architectural background. The Environmental Improvement Areas policy must establish clear pedestrian desire lines and corridors which are to have priority for treatment.

## Camden

Camden has carried out a survey of environmental problems which were identified as traffic congestion 52% of respondents, poor pavements 51%, air pollution 44% and noise pollution 38%. Camden also consulted 310 groups about the TPP and received 59 replies which indicated high support for measures to improve safety, the environment, pedestrian facilities and traffic calming.

Independent mobility for pedestrians with a disability is stressed with an £80,000 bid for approximately 80 pairs of dropped kerbs and £20,000 for altering pavement levels to eliminate stepped access to non-council buildings.

Pedestrian policy includes:

- 1) Improve pedestrian convenience and safety, improve the environment and reduce walking times.
- 2) Promote a network of pedestrian routes
- 3) Incorporate these policies in all highway improvements
- 4) Improved crossing, footway widths and traffic calming.

TPP schemes include £90,000 for footway widening, £80,000 for replacement of subway with at grade crossing and three schemes totalling £110,000 for protected



pedestrian facilities.

Camden intends to pursue policies that place emphasis on the need to improve walking's share of the modal split by developing pedestrian routes to public transport nodes, major facilities and schools, and to promote a package of proposals for next year.

In addition Camden will be investigating how best to improve the pedestrian links between Camden Town and Chalk Farm Tube Stations and Camden Lock.

## **Croydon**

Croydon's approach is to foster economic growth and improve the quality of life by making effective use of the road network and ensuring good public transport. The Borough intends a strategic review of the existing network in the European, national and regional context. Priorities are:

- 1) Improvements to the range, efficiency, accessibility and safety of public transport, within the borough, to central London, orbitally and to mainland Europe.
- 2) Reduce traffic congestion by increasing the efficiency of the main road network
- 3) Discourage through traffic in the town centre
- 4) Improve access from central Croydon to the motorway network
- 5) Encourage cycling and walking.

The Borough proposes enlargements to the A23 and A22 and other highway schemes to improve efficiency by removal of bottlenecks and suggests that more efficient use of the road space will also help to reduce pollution in line with Local Agenda 21.

In addition to Tramway in Central Croydon, the Borough proposes area wide traffic management with public transport priority and junction improvements to accommodate displaced traffic incorporating pedestrian facilities

As part of a "New Deal for Pedestrians" there is a campaign aimed at changing driver attitudes and behaviour towards pedestrians. The Borough takes the view that the most effective way to prevent footway parking is to install physical barriers such as bollards or guard rails.

There is a network of designated greenways in the UDP which link open spaces and public transport nodes. Croydon aims to be the first borough to complete the Inner and Outer London orbital paths (Capital Ring and London Loop) and proposes spending £14,000 to improve surfacing, way-marking and interpretation facilities.

## **Ealing**

Ealing's overall aims are:

- 1) To improve the environment by reducing adverse consequences of excessive use of motorised transport
- 2) To assist economic development by providing access without congestion
- 3) To reduce danger by lowering traffic speeds and removing unnecessary through traffic
- 4) To make public transport, cycling and walking easier
- 5) To improve conditions for people with disabilities

The aims include providing new facilities for pedestrians and achieving a shift towards the less environmentally damaging forms of transport in particular to increase the proportion of journeys made on foot and to encourage walking as an alternative to cars.

The strategy is to reduce inconvenience and risk to pedestrians by improving seating, road crossings, lighting and pavement width as well as to develop a network of safe routes to school which encourage walking.

Whilst maintaining highway capacity, ways will be sought to reallocate road space to buses and cyclists. There are specific targets:

- \* Stabilise traffic over the next five years then reduce by 2% per year for the following ten years.
- \* Increase use of cycling from 3% of trips to 15% of trips within ten years
- \* Increase the proportion of total trips made on foot by 33% in ten years (from 18% to 24%)

Ealing's programme takes the package approach to its limit by a 'borough wide package'. Package includes last phase of pedestrianisation of Leeland Road eliminating all but essential delivery traffic.

## **Enfield**

Enfield's policy background is taken from Department of Transport Circular 2/94:

Improve infrastructure to gain safety and economic benefits through reduction in road congestion.

Traffic management to encourage shift from private vehicles.

Better provision for pedestrians with special regard to safety.

Regeneration of the Lee Valley is of high importance. Enfield supports

construction of additional road space including widening the M25 to four lanes along its entire length, increasing the capacity of the North Circular and is proposing to build a new road running South from the M25.

Objectives are to:

- 1) Reduce need to travel
- 2) Reduce journey length
- 3) Encourage modes other than car
- 4) Improve facilities for pedestrians and cyclists

For pedestrians Enfield seeks to improve the network of footpaths and to ensure footway widths are sufficient with dropped kerbs.

Proposals include seven area traffic calming schemes at a cost of £360,000 per year.

### **Greenwich**

The council recognises that limited road improvement is necessary to provide for certain strategic movements and access to land, to ease congestion and permit traffic management to relieve surrounding areas, however this should be kept to a minimum. The council's strategy is to

- 1) Promote the maintenance and improvement of public transport
- 2) Seek equitable levels of mobility and accessibility for all groups of people, particularly those presently disadvantaged in mobility terms.
- 3) Promote safe and convenient movement for pedestrians and cyclists

The borough is continuing with a £19 million enlargement of the A206 (Woolwich Road) as part of a link between the Dartford Tunnel and the Blackwall Tunnel and proposing an £8 million junction enlargement at the intersection of the A207 Academy Road and the South Circular.

For pedestrians the council will promote high standards of pedestrian safety, accessibility and convenience by introducing pedestrian priority areas especially in town centres as well as expanding the network of pedestrian only or pedestrian priority routes ensuring safe and convenient road crossings.

Traffic reduction and environmental measures are proposed in Plumstead High Street to encourage traffic to transfer to the A2016 Thamesmead Spine Road. There is a £250,000 scheme for refurbishment of the riverside footpath fronting the Arsenal site. No stopping restrictions are to be introduced at all school keep clear markings and new lighting, painting and handrails for Greenwich and Woolwich foot tunnels.

It is the long term aspiration of the borough to pedestrianise Greenwich town centre by building a by pass possibly submerged in the river. In the town centre pedestrian demand was almost continuous and delays to motorists were extreme. Pelican crossings have been installed providing better control of the various types of road user. The current aspiration is to divert lorry traffic onto the A2 across Blackheath.

## **Hackney**

Hackney's policy is

- 1) To encourage new and improved bus and rail services
- 2) To provide bus priority
- 3) To reduce the number and severity of accidents by traffic management and education
- 4) To provide more safe facilities for pedestrians and cyclists
- 5) To discourage car commuters from driving through environmentally sensitive areas
- 6) To control and limit parking provision

For pedestrians, all areas of the borough should be made accessible to pedestrians and areas that attract large numbers should receive particular attention including:

Maintaining footways, new and improved main road crossings, enforcement of the pavement parking ban, speed humps, widening footways, dropped kerbs and additional pedestrian links.

It is the borough's intention to increase resources allocated to pedestrian facilities. The TPP includes £400,000 worth of the above measures on existing roads.

## **Hammersmith**

Hammersmith's key aim is to restrain unnecessary car use. The objectives are

- 1) To give high priority to the needs and safety of vulnerable travellers and to improve accessibility to facilities for people with a disability
- 2) To seek improvements to public transport and extend bus priority
- 3) To maintain a road network with a presumption against any increase in road capacity
- 4) To promote traffic restraint, and to control car parking in non residential development and controlled parking zones
- 5) To promote traffic management and calming
- 6) To reduce the impact of freight movement and encourage use of rail and water

The specific transport and car parking policies are a basis for enabling a



substantial modal shift to take place.

Pedestrian improvements focused on Shepherds Bush, Fulham and Hammersmith will target existing facilities initially with the intention of providing new facilities and signposted routes in the medium to longer term. The council is developing "A Strategy for Pedestrian Routes" in the Borough.

In addition the borough proposes a package of measures for Park Royal at a total cost of £4 million. Pedestrian and cycle measures account for £900,000, bus priority £1 million and junction safety and control £850,000.

### **Haringey**

Haringey introduces the TPP by acknowledging the Royal Commission on Environmental Pollution report on Transport and the Environment in particular including the following three targets.

That public transport's modal share of 12% in 1993 be raised to 30% by 2020  
That cars in London be reduced from 50% of journeys in 1993 to 35% by 2020.  
That cycling be increased from 2.5% of journeys in 1993 to 10% by 2005

Haringey's objectives are:

- 1) Reducing the need for travel
- 2) Promoting less environmentally damaging forms of transport.

Reducing travel calls for higher residential densities and development of existing centres as opposed to out of town centres. In future public transport accessibility indices will be used to guide development locations.

Haringey intends to promote public transport, develop a cycle network and support provision of pedestrian facilities. Haringey is opposed to road schemes which increase capacity generally in particular widening of the North Circular and cautious about Red Routes favouring through traffic.

For pedestrians the policy includes

Safe environment for pedestrians' particularly the elderly, children and people with disabilities.

Maintenance of existing footpaths and increased dropped kerbs and seating on pedestrian routes.

Provision of pedestrian crossings but only exceptionally to promote bridges or subways

Street furniture should be located so that it has no adverse effect on pedestrian flow or safety.

There is a package scheme for people with disabilities including £35,000 on dropped kerbs and £18,000 on textured paving, and a number of traffic calming schemes budgeted at £80,000 per year.

There is a proposal for a package scheme for the shopping area at Spouters Corner and Wood Green High Road which includes Saturday pedestrianisation with a traffic diversion link, narrowing carriageways, speed tables and entry treatments on side roads which are raising the carriageway surface to pavement level. The proposed cost is £3 million.

A borough wide map is aimed at encouraging cycling and walking

## **Harrow**

Harrow's objectives are:

- 1) To manage the highways without increasing overall vehicular capacity
- 2) To protect the environment from the impact of traffic
- 3) To encourage usage and improvement of public transport
- 4) To limit the effects of heavy goods vehicles

Harrow supports traffic restraint on a London wide basis provided there is considerable investment in public transport.

Highway schemes will need to be justified in terms of their ability to optimise the existing network for example by removing existing bottlenecks or by creating additional capacity to allow extraneous traffic to be returned to more appropriate routes. Harrow is progressing the Wealdstone by-pass at a cost of £15 million facilitating pedestrianisation of Wealdstone High Street.

Accident rates at signal junctions in Harrow are lower than average and this inhibits the Council's ability to improve pedestrian facilities as part of the local road safety schemes programme. Harrow proposes a programme of junction works to improve pedestrian facilities with compensatory capacity improvements.

For pedestrians the council will take their needs into account in new traffic management proposals or highway proposals and intends to improve pedestrian facilities by enforcing a footway parking ban throughout the borough and installing guard railing. The council is implementing schemes that involve segregating pedestrians, for example pedestrian subways.

There is a £245,000 proposal to redesign the existing 'Busway Precinct' to promote far greater pedestrian priority and a plan to expand CCTV in Harrow town centre.

In addition, a pedestrian strategy is being developed, the initial focus of which will be a programme of strategic pedestrian routes between core residential areas and local centres and into Harrow Town Centre

## Havering

Havering's strategic policy is for

- 1) Pressuring the Department of Transport to enlarge the trunk road network to carry the majority of through traffic and supporting the construction of a new route for the A13.
- 2) A safe, convenient and efficient road system with no major changes except the A13
- 3) Promotion of public transport, bus priorities and improved interchanges.
- 4) Promotion of safe, convenient conditions for pedestrians and cyclists
- 5) Traffic management measures to limit the impact of traffic including heavy lorries on the environment
- 6) Promotion of the river Thames for transport.

The policy for pedestrians is that the council will seek to improve provision for safe convenient pedestrian movement. In suitable locations, where there are high concentrations of pedestrians a safe and convenient environment can be provided by the creation of vehicle free areas.

Sites for new or improved pedestrian crossings are selected on an equitable basis: Sites are selected which have the worst accident record. Proposals to the Department of Transport for two footbridges over the A127 have been turned down.

Pedestrianisation of South Street near Romford station completed in 1989/90 was reversed in 1993, but the council is considering the extension and improvement of pedestrian priority areas in South Street and High Street.

## Hillingdon

Hillingdon is opposed to the Department of Transport proposals to widen the M4 and M25 and is unlikely to view favourably new road building merely to meet traffic demand. The borough's policies include:

- 1) Safety:
  - On going programme of traffic calming on residential roads
  - Increased lighting
  - Developments should ensure that windows overlook pedestrian spaces

- 2) Reducing car dependency:  
Promotion of public transport, cycling and walking  
Restrictions on supply of road or parking space
- 3) Make better use of the road network.

For pedestrians the borough will minimise the diversion of pedestrian routes and delays experienced by pedestrians at signal controlled crossings, provide crossings, refuges and localised footway widening and dropped kerbs at all crossing points.

The borough points out that half the employed residents live less than three miles from their work but only 5% of journeys to work are by bicycle.

There is a £1.6 million package proposal for Uxbridge Town Centre, following on from road enlargements, including pedestrianisation of Windsor Street, traffic calming in the unpedestrianised part of High Street, provision for Westbound buses to have access to High Street and provision of signing and replacement lighting.

## Hounslow

Hounslow's objectives are:

- 1) To promote affordable public transport which improves access, to reduce car commuting and demand for road space
- 2) To manage the road network in a way which promotes improved public transport
- 3) To promote safety and security for all users especially in threatening areas such as subways and multi-storey car parks
- 4) To protect residents from further detrimental effects of Heathrow.
- 5) To promote physical access to public transport, car parks and pedestrian areas for people with impaired mobility

Hounslow is opposed to Department of Transport proposals to widen the M25, increase capacity on the A406 North Circular and to build the A4/M4 link.

Two major road schemes have recently been completed; the Hayes by-Pass and the Hounslow Town Centre Urban Relief Road with accompanying pedestrianisation

Proposals include a package of measures on the Staines Road A315 up to the junction with the A30 and Clockhouse Lane, Small scale traffic management and pedestrian facilities and traffic calming. £30,000 is intended for street lighting and footway improvements.

Hounslow has a Pedestrian Charter which mainly deals with maintenance of existing pavements by setting targets and supplying telephone numbers for a very wide range of different pavement problems. Charter also includes a commitment to introduce traffic calming in two areas of the borough each year.



## Islington

Islington's policy includes

- 1) Minimising the impact of road traffic on the environment and increasing mobility and accessibility by traffic restraint, local environmental improvements and the improvement of public transport
- 2) Prioritising cycling, walking and public transport over private cars for personal transport
- 3) A continuing programme of providing new pedestrian crossing facilities and improving existing ones and working towards the provision of a network of way marked walks off the public highway in so far as possible.

On Red Routes capacity released by parking reduction should be devoted to bus priority, pedestrian facilities, cycle facilities and accommodating traffic diverted from residential areas rather than to a reduction in private vehicle journey times.

The council is committed to improving the safety and convenience of pedestrians and a system of pleasant pedestrian routes and spaces with improved formal and informal crossings including nibbing out of footways. With few exceptions all signalled junctions should have full pedestrian facilities. The council recognises the need for both recreational routes and routes for every day personal business and intends to develop pedestrian routes through housing areas and linking them to transport nodes and schools, shops, places of work and recreation.

The TPP includes a proposal for £40,000 to be spent on upgrading informal sites by adding dropped kerbs and £120,000 for developing the Islington Park Route which starts at Finsbury Park and the New River Route which follows a historic water course used to carry water from the river Lee in Ware to London.

A study in 1992 identified school areas with the greatest need for road safety measures. Two have progressed with lining and signing measures such as slow signs and children warning signs, beacons operated by school crossing patrols and some improved crossing facilities and speed reduction measures.

## Kensington & Chelsea

The strategic policies of the borough are:

- 1) To support and encourage the improvement of public transport
- 2) To seek the reduction of non-essential traffic
- 3) To seek improvement in the movement of essential traffic
- 4) To seek efficient systems for all modes including walking
- 5) To support the maintenance of a strategic London road network
- 6) To encourage the provision of a continuous Thames path and improve

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- 5) To support the maintenance of a strategic London road network
- 6) To encourage the provision of a continuous Thames path and improve

access to the river

The borough supports strategic restraint as well as parking control.

For pedestrians a programme of light controlled crossings, pelicans and refuges as well as bollards to protect pedestrians on footways from vehicles. The borough is planning a joint package at the London Walking Forum and this bid includes £20,000 to define values and publish a route network

The TPP includes a bid of £500,000 over five years for improvements in Portobello, Kensington High Street, Knightsbridge and Kings Road. The packages will include kerb build outs, raising side road carriageways to pavement level, cycle stands, tree planting and improved paving and street furniture.

### **Kingston**

Kingston's balanced transport strategy includes

- 1) Improving operating conditions for public transport:  
Park and ride schemes are being encouraged  
Bus priority network being pursued  
Widening of Kingston Bridge
- 2) Improved facilities to enable increases in walking and cycling:  
Further pedestrianisation of Kingston Town Centre
- 3) Traffic management and a limited programme of highway improvements:  
Works on the A240
- 4) Restraining demand for cars by arranging car parking:  
Kingston's target for spaces reduced from 10,000 to 7,500
- 5) Only building roads in exceptional circumstances:  
New £40 million road linking the A243 and A3 by-passing Malden

A public attitude survey in the borough supported:

More reliable public transport  
Better provision for cyclists and pedestrians  
Improved road safety and less traffic

The borough has set targets:

Achieve an increase in modal split in favour of non-car travel to Kingston town centre by 20% but not at the expense of the 7,500 target for car parking.  
Increase modal split for cycle from 5% to 15%.

## **Lambeth**

Lambeth's principles include

- 1) Lambeth residents should be able to travel easily and safely
- 2) Comprehensive affordable public transport
- 3) Progressive reduction in motor vehicle use in Lambeth and London
- 4) Transport planning should be democratic so that all residents have the opportunity to influence policy
- 5) Land use should reduce the need to travel

For pedestrians, Lambeth's policy calls for a safe and attractive pedestrian environment, with additional pedestrian facilities and the removal of hindrances for example redundant poles. Policies to increase walking's share of modal split include improved provision by developing pedestrian routes which link up with public transport nodes, recreation facilities, shops, schools and employment areas.

If walking as a mode of travel is to be fully sustainable the central boroughs recognise that it will be necessary to build up local networks of routes and paths in Central London linking with and into the long distance strategic network.

The final obstruction to the Thames walk in Lambeth next to the MI6 building has been removed and Lambeth proposes to spend £300,000 on a project to improve a section of the existing walk

## **Lewisham**

The goals of Lewisham's policy are: Accessibility, Accountability, Efficiency, Employment, Environment, Equality, Equity and Safety.

For pedestrians the council will promote schemes which give priority to pedestrians, will continue to promote the implementation of the National Consumer Council's recommendations, will not support horizontal or vertical diversion of pedestrian facilities and will seek to develop a network of safe convenient and pleasant pedestrian routes linking open spaces and main centres of activity

The Council is completing the Lewisham town centre pedestrian priority area which was facilitated by a new link road and considering pedestrianisation of Montpelier Vale in Blackheath village.

The TPP includes a block bid to study and facilitate

- new or improved access to rail stations
- widening footways at transport interchanges
- new pedestrian links throughout the borough
- improved lighting
- new or improved set down and pick up areas at stations
- pedestrianisation



## **Merton**

The objectives of Merton are to

- 1) Increase the attraction and use of public transport
- 2) Encourage alternative non-motorised modes such as cycling and walking
- 3) Relating traffic to available road space by restraint and parking control
- 4) Improve safety for all
- 5) Improve the environment especially in residential areas.

There is a need to secure and maintain the most convenient, safe and pleasant conditions for pedestrians on existing highways and within new schemes by providing road crossings, dropped kerbs, reduced carriageway widths, widened footways and siting street furniture to preserve footway width.

Footway widths will wherever possible be sufficient to permit wheel chairs to pass.

The council is looking at the possibility of developing a comprehensive pedestrian network throughout the borough with an associated implementation programme.

The pedestrianisation in Mitcham town centre is now completed. TPP includes a bid for a segregated pedestrian way over the Durnsford Road Bridge and £580,000 worth of traffic calming schemes.

## **Newham**

Newham's objectives are

- 1) To contribute as fully as possible to the borough's economic growth
- 2) To support schemes which have positive impact on the environment such as those which promote public transport, cycling and walking
- 3) To improve safety
- 4) To ensure reasonable access for all members of the community
- 5) To improve integration and inter-modal transfer
- 6) To ensure overall need to travel is reduced particularly by private motor vehicles

The requirements of pedestrians especially disabled people and people pushing prams and buggies must not be subordinated to the convenience and dominance of the motor vehicle. This means taking their requirements into consideration whenever traffic management schemes are being designed and whenever works on the public highway are being carried out as well as eliminating obstructions, installing dropped kerbs, tactile surfacing and signing.

It is intended to make permanent the pedestrian priority scheme in the Southern

part of High Street North in East Ham. The majority of through traffic is prohibited between 10 am and 4 pm following construction of the town centre relief road.

The borough will establish and promote a network of a recreational footpaths including the Metropolitan Walks and Thames-side path and is considering the introduction of pedestrian priority at other suitable sites having high levels of pedestrian activity.

### **Redbridge**

The council proposes to review the UDP to take full account of sustainability. It recognises that increased road capacity would not ease congestion but would be taken up by increased commuter car traffic.

The council supports a strategy of reducing need to travel, promoting public transport walking and cycling and reducing reliance on the private car.

In development proposals all pedestrian routes will ensure easy gradients, adequate width, protection from exposure to weather and vandalism and follow convenient routes which are attractive to pedestrians and safe from traffic.

The council is mindful of the Countryside Commission's target that all rights of way should be legally defined, properly maintained and well publicised by the end of the century. A programme of increasing public awareness, encouraging use and bringing these rights of way, where appropriate, up to a usable standard is currently being considered.

### **Richmond upon Thames**

The objectives of Richmond upon Thames are

- 1) To make all areas of the borough accessible
- 2) To provide an integrated transport system without increasing overall road capacity
- 3) To reduce dependence on transport by appropriate land use policies
- 4) To minimise danger to road users through enforcement, education and engineering
- 5) To improve public transport and facilities for cycling and walking
- 6) To remove through and heavy goods traffic from residential areas
- 7) To provide on and off street parking to meet reasonable needs
- 8) To encourage full access to public transport for people with disabilities

For pedestrians Richmond seeks to maintain and improve the environment for all pedestrians including those with disabilities. Provide practical safe and convenient

road crossings, dropped kerbs and tactile surfacing and where possible seek to provide pedestrianised or partly pedestrianised streets and new or improved river crossings.

The council enforces the London-wide footway parking ban and if necessary will provide physical measures.

The council recognises that the provision of pedestrian and cycle facilities may have few direct safety benefits.

### **Southwark**

Seeks reduction in car use at busy times by charging cars or other means and proposes a campaign to discourage car reliance and encourage walking for example by promoting walking to school/work 12 days a year.

Increased number of trips on foot to be achieved by more extensive road crossing and pedestrianisation at busy trip ends.

Southwark carried out consultation on TPP with 60-70 organisations.

Southwark aims to make walking safe, secure and convenient. Road layout can encourage street crime and fear. The most vulnerable are children, the elderly, women and black people. There is emphasis on safety education for children.

Schemes in the TPP are £50,000 for School and Park Access and £160,000 for Government Office for London City Walk from Crystal Palace to Trafalgar Square.

### **Sutton**

Sutton's strategy is based on measures to limit growth in car trips and encouraging alternative modes such as public transport, cycling and walking. The borough intends to

- 1) Promote public transport by providing new infrastructures and services including funding additional new services to under-served parts of the borough
- 2) Introduce measures to promote cycling
- 3) Investigate the opportunities for use of both electrically and gas powered vehicles. Seek a more sustainable means of propulsion and much reduced noise emission
- 4) Balance economic need for movement with ecological need for traffic restraint
- 5) Give priority to measures which favour public transport, cycling and walking and use its powers to shift modes of transport away from individual car traffic
- 6) Work with the community, schools and businesses to reduce dependency on car trips

For pedestrians the borough will pursue appropriate safe crossings where justified and maintain and wherever possible improve and extend pedestrian areas, footpaths and footways.

Further and full pedestrianisation of Sutton High Street is intended as soon as rear servicing arrangements can be secured. There is a plan for a new pedestrian and cycle way along the River Wandle at Beddington Corner.

A package of pedestrian and cycle facilities, pavement widening and improved street lighting is proposed in Beddington in conjunction with completing the Beddington Lane/Beddington Farm route.

Sutton also proposes a new link road between the A24 Oldfields Road and the A217 Sutton by-pass at a cost of £3.3 million.

### **Tower Hamlets**

In the introduction Tower Hamlets refer to Agenda 21 and sustainable action for a greener environment. The strategic policy includes:

- 1) Safety and convenience for all road users
- 2) Support for public Transport
- 3) Restraining cars and reallocating road space
- 4) Traffic calming
- 5) Opposition to road building

The pedestrian policy is to encourage walking as a form of transport by introduction of a strategic walkway network. The first phase is a study to assess pedestrian needs and building the Aderfeldy/Leamouth footbridge with lifts. There is a programme for footway reconstruction covering about three streets per year. This is separate from the programme of carriageway reconstruction. There is a bid for repaving the Northern section of Tower Hill in York stone.

### **Walthamstow**

Walthamstow's strategy includes:

- 1) Development of an efficient and convenient public transport system and undertaking of measures to encourage its use.
- 2) Support and propose measures to discourage private car use
- 3) Take into account requirements of pedestrians
- 4) Undertake a transport and accessibility study for major developments
- 5) Safety measures at particular sites and measures to reduce traffic speeds

The borough opposed the building of the M11 extension to the Blackwall Tunnel



Northern approach and opposes the principle of priority red routes particularly on the A11 and A106. In conjunction with the M11 construction the borough wishes to reduce capacity in the M11 corridor and produce a package of side road entry treatments and speed tables and other measures in the shopping area on Leytonstone High Road.

For pedestrians, schemes that are being prioritised are those which are the most likely to reduce accident levels including a program of increased crossing facilities. The borough will:

- Oppose proposals which would result in the loss of any footway
- Maintain and improve footpaths and pavements wherever possible
- Pedestrianise major shopping streets
- Identify areas with high levels of pedestrian activity and focus resources on them.
- Improve pedestrian links to public transport.

### **Wandsworth**

Policy to improve pedestrian facilities where appropriate, by identifying and prioritising key pedestrian routes. High priority to be given to the repair of damaged and dangerous footways. Overall policy includes improvements to the A3205 (Nine Elms to Wandsworth Bridge along South side of Battersea Park) described as improving the flow of traffic without increasing volume, and downgrading the A3036. Council intends to review and enforce the footway parking ban in Special Parking Areas.

Programme of School Keep Clear markings and proposal for school safety zones by calming and signs.

In 1996/97 the Council is working with the London Walking Forum Central Sector Group will identify major local pedestrian routes and implement measures to assist movement on the Inner London Pedestrian Network. The Council is also considering a package scheme for the future of Wandsworth Town Centre.

TPP includes a bid for work on the Thameside walk at Feather's Wharf.

### **Westminster**

Westminster supports upgrading existing rail facilities, building Cross Rail and Chelsea Hackney Line and widening the M25. Parking policy is used to restrain trips to and within Westminster, but these policies do not discourage through trips which would be reduced by widening the M25. Car ownership is expected to continue to rise. In 1981 32,100 cars were kept by 36% of households by 1991 43,677 cars were kept by 42% of households.

Large scale road building within Westminster is neither viable nor desirable but the borough supports schemes which reduce congestion and improve bus operation and safety.

For pedestrians, the policy includes pedestrianisation schemes in shopping areas which are not on strategic or secondary roads, improving conditions on the main thoroughfares, investigating accident clusters, upgraded crossings and improved information.

Renovation of Oxford Street is to continue between Oxford Circus and Tottenham Court Road. Further proposals for Aldwych and Trafalgar Square are still under consideration.

## B REVIEW OF LONDON UDPS

### Data supplied by LPAC

#### *Summary*

Data on walking	4
Accident data	6
Problems	29
Accidents	29
Personal security	23
Inconvenience/accessibility	21
Policy justification	
safety	30
Equity	7
Economic viability/vitality	9
Health	5
Targets for walking	0
Targets for accidents	7
Land use policies for walking	
Density	15
Mixed use	28
Location	27
Site layout	26
Building design	13
Planning conditions/gain	20
Transport policies to promote walking	
Networks and routes	27
Calming and restraint	19

Street environment		
Some policies (from list)	33	
Local centres	13	
Town centres	30	
Footway widths	9	
Recreational paths	31	
Access to Public Transport	25	
Crossings	28	
Footway parking	16	
Reconcile with cycling	14	
Reallocate roadspace	1	(Lambeth)
Facilities for disabled	29	
Policies to "consider pedestrians" in		
Highway schemes	27	
Traffic management schemes	24	
Other policies		
Security/lighting	27	
Organisation for pedestrians	0	
Specific schemes		
safe routes to school	2	(Lambeth and Islington)
Traffic calming	2	
Pedestrianisation	17	
Green chain walks	26	
Pedestrian links	5	
Pedestrian priority areas	8	
Effects of Red Routes	2	
Subjective assessment of pedestrian policy type		
Strategy for pedestrians	1	(Richmond - part of transport strategy)
Disparate policies/schemes	30	
Separate pedestrian policy section	0	

## C CONCLUSIONS FROM UDP AND TPP REVIEW

Unitary Development Plans (UDPs) and Transport Policies and Programmes (TPPs) produced by London Boroughs tend to divide walking between a range of other transport and planning issues when examining policies for walking. Rather than working towards a strategy to encourage walking as a mode of transport, policies tend to be mainly couched in terms of road safety, personal security and recreational walking.

Thus the context set for walking in TPPs and the preamble to, or justification for, UDP policies focusses heavily upon the issues of pedestrian safety and security, as well as the lack of convenience and accessibility to key locations by foot. Only in terms of safety and security is this context subsequently worked up into fairly comprehensive policy for pedestrians in most UDPs and TPPs. Positive arguments aimed at encouraging people to walk can be found - the advantages of walking in health, equity and economic terms are included in some UDPs, for instance. Unfortunately, little data is collected by Boroughs to either help formulate or justify walking policy. Furthermore, no Borough sets out policies directed at achieving a target for walking in general, although seven UDPs do include targets for accident reduction.

Many land use policies in UDPs impinge upon pedestrian issues. These include policies relating to development density, mixed use development, location and site layout - all aspects of the urban fabric which can be manipulated to encourage walking as a mode of transport. Such issues are covered well in many UDPs (although not necessarily with explicit reference to walking), particularly those which have been adopted after sympathetic shifts in national planning policy were published, such as PPG13 - Transport in 1994. TPPs are also fairly well in tune with such changes in national policy, since their annual publication allows them to keep abreast of trends more easily than the less-frequently updated UDPs. Aspects of implementation are also addressed - almost two thirds of UDPs look at using planning conditions or drawing up planning gain agreements in order to encourage the form and type of development which will improve conditions for walking.

Relating to walking issues more specifically, many UDPs and TPPs include transport policies to promote walking, particularly by promoting and/or providing pedestrian networks and routes and improving footway conditions. Traffic calming or traffic restraint schemes to benefit pedestrians are less common, but are still found in the majority of the documents. The need to reconcile walking policy with that relating to cyclists is also perceived as being an important issue by many Boroughs.

Other transport issues covered in UDPs and TPPs, such as policies for highway and traffic management schemes, are less pro-active in encouraging walking and only serve to "consider" pedestrians rather than working to promote walking. Occasionally, issues stretching beyond the traditional boundaries of land use and transport planning which influence walking can be found. Croydon's TPP, for instance, notes an awareness campaign which aims to change driver attitudes and behaviour towards pedestrians.

Many UDPs and TPPs include aims to improve conditions for pedestrians. Town centres and recreational paths are the main foci for UDP and TPP policies aimed at improving the pedestrian environment, as well as the need to provide facilities for the disabled pedestrian. Road crossings and access to public transport are also seen as areas where improvements could be made. Much less work, however, has been done on looking at footway capacity and widths required to accommodate



various amounts and types of pedestrians, or looking at reallocating roadspace in favour of the pedestrian. This could be partly a symptom of the lack of data held by Boroughs on pedestrians and a consequent imperfect understanding of their needs. Similarly, no Boroughs appear to have an organisational structure at officer level which is conducive to encouraging walking - no mention is made in the UDPs of any Borough having a Walking Officer, for instance. Hounslow's TPP does, however, mention a Pedestrian Charter which includes a telephone contact at the Council who acts as a conduit for public comments on pavement maintenance problems. As mentioned in the main report, footway maintenance is an area where there is significant expenditure and the organisational structure to deal with it on a continuous basis.

When examining specific schemes put forward in UDPs and TPPs in relation to pedestrians, most appear to focus upon pedestrianisation schemes (mostly in town centres) and "Green Chain" recreation-type routes. However, other more varied schemes can also be found. Two Boroughs have policies referring to safe walking routes to school, others examine the importance of Red Routes for pedestrians whilst a greater number look at developing pedestrian links to key locations.

Overall, although the UDPs and TPPs produced by London Boroughs do contain a range of policies aimed at pedestrians/walking, this is done in a manner which has two basic problems at present. Firstly, the focus of policy is unbalanced, being heavily biased in favour of initiatives aimed at the safety/security of pedestrians and recreational walking rather than encouraging walking as a mode of transport.

In reviewing UDPs and drawing up new TPPs, Boroughs could seek to be more pro-active where pedestrians are concerned, taking the emphasis away from merely including reactive initiatives. Secondly, these policies could be included in the UDP and TPP in a coherent manner (with the overall aim of promoting walking as a mode of transport) rather than the dispersed collection of policies which form the current picture of walking policy in London.

## 5 BACKGROUND POLICY DOCUMENTS

### Summaries of national and regional policies relevant to walking in London

#### *Local Agenda 21. Earth Summit Rio 92. A guide to Local Authorities in the UK. Local Government Management Board.*

In the promotion of sustainable energy and transport systems in human settlements, developed countries need to reduce waste of energy. Countries should formulate national action programmes to promote integrated development of energy saving. They should promote sound urban transport systems by integrating land use and transport planning to reduce demand and by promoting public transport ensuring that it is efficiently managed and that the infrastructure is maintained and by promoting non-motorised modes.

#### *Sustainable Development: The UK Strategy. Cmd 2426. London: HMSO. Jan 1994*

Sustainable development tries to reconcile economic development with environmental protection so that development meets present needs without compromising the ability of future generations to meet their needs. Sustainable development requires changes in lifestyle from everyone such as limiting the use of the car although it is not the Government's job to tell people where and how to travel.

Improved exhaust controls are expected to reduce NOx emissions until 2012 when projected traffic growth will halt the decline. The UK is committed to returning CO2 emissions to 1990 levels by 2000. The principal measure to achieve transport's contribution is a commitment to raise fuel duties annually by 5% in real terms.

The transport goal is to meet the economic and social needs for access to facilities with less need for travel and in ways which do not place unacceptable burdens on the environment. This requires policies which will:

- Influence the rate of traffic growth
- Provide a framework for individual choice which enables environmental objectives to be met
- Improve the design of vehicles to minimise pollution and CO2 emissions.

Measures available include:

- Ensuring transport costs reflect environmental costs so that transport decisions are efficient.
- Land use policies which reduce travel and encourage less polluting travel.
- Market measures or regulations to improve environmental performance of transport.

Policies to promote public transport where these can increase efficiency.

The need to travel could be reduced in the longer term by land use planning in accordance with Planning Policy Guidance Note 13. The Government is asking local authorities to reduce traffic growth through their transport programmes. Traffic calming, facilities for public transport priority and for walking and cycling are receiving higher priority for government funding. Agenda 21 will serve to shape the continuing debate. Local authorities will need to develop sustainable strategies for transport and planning, to manage the demand for transport in their areas and to develop clear environmental targets and criteria.

The Government's road programme is designed to address congestion at peak times. Failure to provide additional road space in the absence of measures to reduce or manage demand could result in increasing congestion and diversion on to less suitable routes.

Motorway charging will help to address congestion from rising demands for road capacity as the economy grows. The Government is considering, with local authorities, the scope for road pricing in urban areas to manage congestion pressures.

***Planning Policy Guidance: Transport. PPG 13. Department of Transport and Department of the Environment. March 1994***

The continuing growth in road transport on the scale projected could threaten our ability to meet objectives for greenhouse gases, air quality and the protection of landscape and habitats.

There is scope for further improvements in vehicle emissions but they will not be sufficient. Forecast levels of traffic growth cannot be met in full. Further measures are necessary to reduce environmental impact and influence the rate of traffic growth. See "Sustainable Development: The UK Strategy" Command 2426. London: HMSO.

By planning land use and transport local authorities can reduce reliance on the private car. More weight is to be given to demand management:

- Promoting alternatives to the private car
- Enabling people to reach everyday destinations with less need to travel
- Reducing local traffic on trunk roads and other through routes

Development plans should aim to reduce the need to travel especially by car by:

- Locating development and fostering forms of development which encourage walking cycling and public transport use
- Promoting development at locations which are highly accessible by means other than the private car
- Improving choice for people to walk cycle or catch public transport rather

that drive between houses and facilities  
Limit parking provision for developments and other on or off street parking provision

### *Planning at the pedestrian scale*

The mix of development determines the vitality and attractiveness of a locality. Planning for a variety of uses on the ground floor of developments will help to keep streets lively. Attention to preserving or enhancing continuous pavement level streetscapes and the avoidance of blank frontages can be a major contribution to retaining pedestrian activity.

### *Provision for Pedestrians*

Better conditions for pedestrians and cyclists linked to locational policies which promote local activity could lead to significant changes in travel choice.

Local authorities should plan proposals to make areas safer and more attractive to pedestrians. Options include traffic calming, environmental improvements, improved lighting, wider pavements, narrower carriageways and friendly crossings which avoid long detours or delays. In some areas it may be possible to develop pedestrian routes along riverbanks, canal towpaths or disused railways. But pedestrians should not generally be segregated from the roadway or other activity: Isolated routes are not generally attractive and can encourage crime. These steps may be accompanied by measures to reduce vehicle speeds and traffic levels including pedestrianisation.

### ***Royal Commission on Environmental Pollution. Eighteenth Report: Transport and the Environment. October 1994, London: HMSO***

The transport system must already be regarded as unsustainable. The forecast by the Department of Transport that road traffic would double by 2025 would be unacceptable in terms of emissions, noise, resource depletion, declining physical fitness and disruption of community life.

A sustainable transport policy cannot accommodate growth of more than about 10% a decade in overall demand for transport. This may be achieved by a balanced approach combining pricing and measures to promote alternatives to private transport.

A sustainable transport policy must have the following clear objectives:

- A Land use planning to minimise travel
- B Air quality that will prevent damage to health
- C Reduction in the dominance of cars and lorries particularly in towns
- D Raise proportion of travel and freight transport by less damaging modes
- E To halt the loss of valuable land to transport infrastructure
- F To reduce carbon dioxide emissions from transport



- G To reduce demands on non-renewable materials
- H To reduce noise from transport

It should be a target to reduce the proportion of urban journeys undertaken by car in the London area from 50% to 45% by 2000 and to 35% by 2020.

Local authorities should devise the measures which will be needed to make it more attractive to make short journeys on foot rather than by car. We recommend that local authorities should provide networks of safe pedestrian routes, especially those which will enable children to walk to school when they live close enough to do so.

It should be a target to increase the proportion of passenger-kilometres carried by public transport from 12% in 1993 to 20% by 2005 and 30% by 2020.

***Planning Policy Guidance. PPG 6. Town Centres and Retail Development. Department of the Environment. June 1996***

PPG 6 proposes increased emphasis on mixed town centres. Wherever possible the government wishes to see new retail development in town and district centres. Local authorities to take initiative in identifying sites. First preference to be given to town centres, then edge of centre, then out of centre in locations accessible by a choice of transport means. Development proposals to be assessed in relation to:

- Impact on the vitality and viability of existing town centres
- Accessibility by a choice of means of transport
- Impact on overall travel and car use

***Traffic Management***

Traffic management policies for town centres should include

- Convenient public transport facilities and bus priority measures
- Provision and location of car parking
- Traffic calming measures
- Access routes for pedestrians, cyclists and disabled people and possibly areas for special initiatives to improve accessibility for people with disabilities and shoppers with prams or pushchairs

Strategies should include measures to improve the pedestrian environment, including wider pavements and more direct and safer pedestrian routes and crossing and networks for safer walking which focus on town centres.

***Air Quality: Meeting the Challenge. The Government's Strategic Policies for Air Quality Management. 1994***

Three main areas are identified in relation to improving air quality

- A new framework of national air quality standards and targets
- New systems for local air quality management based on air quality areas

Effective control of emissions, particularly from vehicles

***London Planning Advisory Committee (LPAC). Advice on Strategic Planning Guidance for London. 1994.***

The advice is intended to cover the next fifteen years and is organised into three levels; vision, objectives and policy.

The vision has four elements:

- A strong economy
- A good quality of life
- A sustainable future
- Opportunities for all

A selection of the objectives are to:

- 1 Enhance London's role by maintaining and improving regional, national and international transport links.
- 2 Maximise participation of all Londoners
- 8 Enhance vitality and viability of centres accessible by public transport
- 13 Reduce the amount of travel and dependence on the car, improve public transport and make walking and cycling more attractive
- 20 Reduce pollution and minimise the use of scarce resources especially by reducing the adverse effects of transport and encouraging fuel efficient modes

***Targets for traffic and pollution***

LPAC recommends that the government should establish national targets for reducing the levels of pollution in the environment. In order to reduce the contribution made by cars to carbon dioxide emissions, the government should establish targets in London based on both reducing traffic levels and parking provision and improving public transport.

***Strengthening town centres***

The government should ensure that development associated with the roles of town centres but which is proposed outside those centres should normally be resisted. Boroughs in partnership with retailers, public transport operators and town centre users should draw up management strategies which improve accessibility for all sections of the community primarily by non-car modes and through public transport improvements and parking policies

***Transport Policies***

- Coordinated land use and development
- Consistency in financing of London's transport system
- Encourage modes which are environmentally friendly including walking and

cycling

Restrain traffic especially the car by parking controls and physical and pricing measures

Comprehensive traffic calming and enforcement with greater priority for non-car based users

Improved public transport.

Boroughs should

Adopt planning policies that reduce need to travel

Set local target traffic levels

Promote access and ease of use of public transport

Promote road space reallocation

Promote greening through traffic calming

Promote walking and cycling

Develop a green approach to their own transport services and fleet

Educate and inform on alternatives to use of the car

Continue to develop their monitoring and control of air quality and noise

More fully reflect transport's contribution to sustainable development

### *Pedestrians and cyclists*

Around half of all journeys are under 3 kms and 32% are under 1.6 kms. There is therefore plenty of potential to shift journeys away from car to walking and cycling if appropriate policies are adopted that both encourage non-car use and discourage car use

It is essential that part of the transport budget for London is available to strategic pedestrian and cycle projects and that local projects can be progressed.

A more comprehensive consideration is required which could include new emphasis in three areas:

Firstly: "Safe routes to school" projects and walk to school days should be encouraged.

Secondly: Keeping existing footways safe and clear of obstruction

Thirdly: Boroughs should develop new pedestrian facilities by (partial) pedestrianisation of Central London and town centres, traffic management schemes and thorough integration of pedestrian routes, green chains and metropolitan walks with other pedestrian facilities and the wider transport network.

### *People with disabilities*

Government should ensure appropriate statutory responsibility to provide for the travel needs of people with disabilities. The boroughs should develop programmes to make the highway, town centres, public buildings and public transport accessible to all.

*Government Office for London (GOL). Strategic Guidance for London Planning Authorities. RPG3. May 1996.*

LPAC's advice has had a significant impact on RPG3. The Secretary of State commends LPAC's fourfold vision. The Government's objectives are to:

- 1 Promote London as a world city
- 2 Maintain and enhance the competitiveness of business
- 3 Encourage land use which reduces the need to travel especially by car
- 4 Promote urban regeneration
- 5 Enhance town centres as facilities that are accessible to all
- 6 Maximise housing provision
- 7 Maintain and improve openland
- 8 Improve attractiveness of urban environment
- 9 Develop transport systems which contribute to the achievement of competitiveness, regeneration and environmental quality.
- 10 Seek to improve air quality, reduce pollution and the use of energy.

Boroughs should put their planning activities in the context of the strategy for sustainable development, Agenda 21, endorsed at the 1992 Rio earth summit.

Boroughs should recognise the importance of London's waterways including the Thames, Grand Union Canal, Regent's Canal, River Lea Navigation, Yeading Brook, River Brent, River Roding, River Bean, River Ingrebourne, River Cray, River Ravensbourne, River Wandle, Beverley Brook, River Hogmill and River Ember. They should maintain and where possible improve access to waterways for pedestrians, cyclists and people with disabilities.

#### *Town Centres*

The policy is to maximise the opportunity for shoppers and other town centre users to use means of transport other than the car. Out of centre developments are only likely to be acceptable:

Where existing opportunities cannot provide good retailing opportunities  
New development would not undermine the vitality and viability of existing centres

In locations that can be well served by public transport either existing or proposed

#### *Transport: Strategic objectives*

To maintain and enhance international links

To enhance commuter services by rail and underground

To promote greater use of less polluting modes of transport subject to the need to maintain competitiveness and safety

To facilitate access to the central business districts and ease of movement



within them

To plug major gaps in the road and rail network.

The government recognises that it is not possible to resolve congestion and pollution through major new road construction. The government's policy is therefore to seek to change the trends in traffic growth through the encouragement of alternative modes.

#### *Boroughs should*

Accommodate economic activity and new development in such a way as to minimise car use and ensure that a high proportion of movement needs can be met by more sustainable modes

Assess how congestion can be eased and safety improved by restraint policies, junction improvements, traffic management measures, and measures to promote public transport and improve conditions for pedestrians and cyclists

Act to constrain traffic growth in different areas by setting maximum parking standards and by targeted parking control measures

Negotiate planning obligations to ensure traffic management and restraint

#### *Traffic Director for London*

The aims of the Traffic Director for London are:

To improve the movement of all classes of traffic on the red route network

To provide special help for the efficient movement of buses

To reduce the impact of congestion and improve the local environment

To provide better conditions for pedestrians and cyclists

To do so without encouraging further car commuting into Central London

#### *Walking*

Boroughs have the major responsibility for providing high quality facilities for pedestrians. A better quality environment for pedestrians can encourage more people to make more trips on foot. In including policies and proposals which promote safe walking within their UDPs, boroughs should ensure that

New developments and transport interchanges allow ready access for pedestrians as well as other road users

New land use allows for a greater number of journeys between activities to be made on foot

Areas and routes set aside for pedestrians are as far as is practicable fully accessible and do not create obstacles for people with disabilities

Proposed walks are integrated with other networks including cycle and bus networks and allow access to public transport.

They have considered the scope for traffic free routes in London coordinating access to waterside routes including the Thames path and longer distance routes

They include policies and proposals for creating green corridors along major transport routes. See GOL with the Countryside Commission. Study of London's Green Corridors, 1995.

***Green Paper. Transport the Way Forward: The Government's Response to the Transport Debate, April 1996. CM 3234, London HMSO***

The green paper considers how to address current forecast levels of road traffic balancing the requirements of freedom of choice, a competitive economy and a healthy environment and suggests four key themes which the government intends to pursue:

Better planning of transport infrastructure to ensure that cost effective public transport alternatives to road building are considered at an early stage without holding up necessary improvements

Making more effective use of existing infrastructure

Reducing dependence on the car especially in towns. The need for local solutions means that local authorities must play a leading role

Switching emphasis in spending from roads towards public transport and reducing the impacts of road freight

***Traffic Growth and Targets***

Currently forecast levels of traffic growth will lead to increasingly severe congestion and damage to the environment which will not be sustainable. As most traffic is local, the key to further improvements lies at local level. The government believes therefore that local authorities may need to consider additional traffic restraint measures in order to reduce congestion and improve the environment

The government supports the adoption of a national target for cycling on an experimental basis and intends to promote discussion of national traffic targets. Traffic targets are most relevant at a local level where costs and benefits can be more easily weighed

Most evidence suggests that measures to restrain traffic or increase its cost are necessary to achieve a significant reduction in car traffic. See Impact of Transport Policies in Five Cities, TRL 1994.

## *Pedestrians*

Much can be done at a local level to improve conditions for pedestrians. Changes in behaviour could make a real difference in for example journeys to school, which account for 1% of all car mileage but 20% of car journeys in urban peak periods.

The government will arrange a forum to consider the role of walking in reducing car dependency.

### ***Government Office for London. A transport strategy for London: The second in a series about government action in London. London HMSO 1996***

This strategy is partly in response to "London's Action Programme for Transport 1995-2010" by the London Pride Partnership. It does not look in depth at planning policies as these are covered in the strategic guidance. The green paper sets out an agenda for action. GOL's view is that without additional measures, currently forecast levels of traffic at a national level will not be sustainable.

Improvements in vehicle specification and enforcement at a national level is expected to bring about a reduction in total emissions from vehicles until at least 2010 when the increase in traffic begins to erode this advance.

With an emphasis on freedom of choice preferences for mechanisms to reduce traffic are:

First preference: A price mechanism to induce modal shift. In order to discourage vehicles from entering the central area, the most efficient mechanism is to levy a charge for doing so.

Second preference: Discourage traffic from entering Central London and town centres by providing good alternative routes around the centre and offering public transport alternatives.

Third Preference: Measures which restrict the use of the car by eliminating parking and reassigning road space may be necessary

The option of denying the ability to travel by car by the use of bans or road closures is one that we are extremely reluctant to contemplate. It is a possible solution to local problems. It is not an acceptable solution to London-wide problems

No single policy can reverse the underlying trend towards more polluting modes of transport. The strategy has to encompass a number of complementary strands. The main ones are:

Improving and extending rail and underground

Increasing the real costs of cars compared to public transport

Traffic management measures to ease congestion caused by general traffic while freeing road space for other road users particularly buses

Improving quality and reliability of buses

Promoting walking and cycling to serve markets in which they can compete with the car whilst being realistic about what they can deliver

Using the planning system to reduce the need to travel and reduce the dependency on the car to make particular journeys

Seeking through education and promotion to influence travel decisions in favour of less polluting modes

### *Walking*

Many initiatives are in hand including City walks, the riverside walkway along the Thames and partial pedestrianisation of Trafalgar Square and Parliament Square. The emphasis is very much on tourism as a recreational and tourist activity rather than as a means of getting about London as an alternative to the car. The latter goal is more difficult to achieve. It means having regard to detailed layouts of roads. The physical segregation of pedestrians from traffic has obvious safety benefits but it can make it more difficult to get around the city on foot.

GOL will look at the results of LPAC's study into a pedestrian strategy for London to help understand better how to promote walking.

### *Transport Policies and Programmes.*

***Local Transport Policies and Programmes 1996-97. Supplementary guidance to London Local Authorities. Government Office for London. May 1995.***

The Government will expect TPPs in London to pay particular attention to the needs of pedestrians. GOL will look to see that TPPs include information relating to how general highway improvement and traffic management proposals improve conditions for pedestrians. There may be a case for extending pedestrianised areas in London. GOL will consider bids for schemes such as pedestrianisation as an element of an area wide strategy

***Local Transport Policies and Programmes 1997-98., Proposed key changes to supplementary guidance to London Local Authorities for 1996/97. Government Office for London. March 1996.***

Priority will be given to the bus priority network and London cycle network. There will be no funding available under the TPP system for new package bids in 1997/98. Funding is replaced by Capital Challenge funding across all local authority activities.



The sustainable development strategy is concerned with the ability of transport to serve economic development. While promoting less polluting modes of travel will play a part in this, it still needs to be recognised that businesses require good access to transport networks to remain competitive. New roads may be needed to relieve town centres to allow parking restraint or pedestrianisation, but road proposals should not bring more traffic into congested town centres.

Authorities should describe how a package bid will be monitored. For example a package emphasising bus priorities might include the intention to provide data on:

- Bus journey times
- Reliability
- Increased attraction to the public
- Higher patronage
- Changes in modal share
- Reduced congestion
- Higher air quality

*Government Office for London (GOL). Strategic Planning Guidance for the River Thames. Consultation draft. June 1996.*

Local authorities should:

- adopt policies in their development plans to protect and enhance public access to and along the River.
- require developments along the River to incorporate a riverside walkway where shown in the Countryside Commission's Thames path proposals with links to the surrounding networks, and ensuring dedication for public use by means of a walkway agreement
- encourage provision for cyclists to be incorporated alongside riverside walkways, subject to practicability and safety considerations.

## 6 FURTHER BACKGROUND REFERENCES

This is not a comprehensive bibliography, but lists further references used for background material during the study. A simple classification system is used which may also be useful in future work developing the strategy.

### Codes:

Suffix L = London specific

(Note: double letters used for easy computer search)

- aa Background
- bb Data
  - Basic data sources
  - Understanding and interpreting on walking as mode of travel
- cc Methodology
  - Techniques of measurement and analysis of walking conditions
  - risk and safety
  - behaviour
  - etc
  - Place analysis
  - Public attitudes
  - Ad hoc surveys and studies
- dd Strategy
  - Help with determining what a strategy should contain
  - Examples of attempts at strategy
  - Discussions about targets
- ee Solutions to specific problems
  - Problem types (severance, safety, etc)
  - Solution types (pedestrianisation, river walks, shared space)
  - Case studies, place and scheme examples
- ff Legal and organisational framework
  - Budget allocation, package funding
  - Tax and subsidy regimes
  - Legal issues (eg. cycling on footways, shared space, obstruction)
  - Responsibilities and representation

**Summary of publications: Pedestrian Policy**  
**Order of Publications: Random**

- ddL Department of Transport, "Traffic in London: Consultation on Draft Traffic Management and Parking Guidance for London from the Secretary of State", 1992  
Main initiative was the Red Routes. Policy background: Central London - bus priority measures and parking controls; Inner City - limited road schemes at bottlenecks, improve bus services and moderate traffic growth; Outer London - traffic management to support new road and light rail development.  
Pedestrians are recognised as important. Priority to be given to measures which minimise risk and inconvenience. On red routes consideration is to be given pedestrian phases in existing and new signal schemes.
- eeL Roberts, John, "The Accessible City", Transport and Environment Studies, London 1985.  
The Accessible City is a critique of the City of London Draft Local Plan and proposes an alternative transport policy for the city of London based on dramatic improvement of pedestrian facilities with a new hierarchy of streets; throughway, local access, go slow, bus mall, pedway and peak pedway. The scheme would require some traffic reduction in Central London generally, for example by improved public transport, bus lanes, control of illegal parking and replacement of company cars with pay in cash.
- cc Hass-Klau, Carmen and others, "Pedestrian routes in central Edinburgh," in Traffic Engineering & Control, May 1993.  
Survey of attitudes to a range of difficulties experienced by pedestrians in Edinburgh suggests that there would be a dramatic increase in the number of pedestrians if conditions were improved mainly by reduction in traffic.
- ee Friends of the Earth, "Bicycles Bulletin: Shared Use", London 1983.  
Shared Use considers routes shared by pedestrians and cyclists with particular emphasis on main road crossings at grade, bridges and subways. It includes examples of good practice.
- ee Thompson, S J and others, "Pedestrian Refuge Schemes in Nottingham" in Traffic Engineering & Control, March 1990.  
Analysis of benefits of pedestrian refuges found that the refuges did not reduce pedestrian injury rates but pedestrians felt safer.
- ee Bowers, P H and others, "Shared Space and Child Safety" in Traffic Engineering & Control, November 1984.  
Suggests that the use of circuitous road alignment and tree planting which reduce visibility are not a viable way of achieving speed

reduction to protect children at play.

- cc Grayson, G B, "Observations of Pedestrian Behaviour at Four Sites", Transport and Road Research Laboratory LR 670, 1975.  
Camera observations of adult and child kerb drill.
- cc Jacobs, G D, "A Comparison of Shopping Times in High Street and Precinct Types of Shopping Area", Transport and Road Research Laboratory LR 150, 1968.  
Shopping in a precinct saves 3.5 minutes on a normal shopping trip.
- cc Dalby, E "Space-Sharing by Pedestrians and Vehicles" Transport and Road Research Laboratory LR 743, 1976.  
Kerbless shopping streets (Cornmarket and Queens St, Oxford) with concrete slab paving and between 80 and 160 vehicles per hour did not pose an increased accident risk to pedestrians.
- dd Turner, Tom, "Placing Trust in Greenways" in PlanningWeek 15 February 1996.  
Parks are now used for exercise rather than sitting. The Lottery grant to the Urban Parks Programme could be used to link parks into Greenways for pedestrians.
- bb Pritchard, Stephen, "Arresting the Causes of Crime with Design" in PlanningWeek, 15 February 1996. 1 page article  
More attractive urban environment increases the number of people around which helps safety and reduces crime.
- ccL Colin Buchanan & Partners for Traffic Director for London, "Priority (Red) Routes: Red Routes and Retailing", October 1995. 8 page Pamphlet  
Retailers on red routes felt that the new measures could reduce trade because of reduced parking and increased through traffic. Report outlines survey methods to investigate this and notes that 5-10% of shoppers parked on the red route mostly illegally.
- cc Hine, Julian and Russell, John, "The Impact of Traffic on Pedestrian Behaviour: 2 - Assessing the Traffic Barrier on Radial Routes", in Traffic Engineering & Control, February 1996. 5 page Article  
The article suggests that differences in road crossing frequency between children or elderly people and people aged 18-65 provides a measure of the barrier effect of particular traffic conditions which may be used to compare different sites or the same site before and after highway alterations.
- bb Goodwin, Dr P, "A Quality Margin in Transport", Traffic Engineering & Control, December 1992. 4 page Article  
Article argues that quality of journey should be included in planning decisions and that measures of quality are required. Defines a quality



margin as the difference between the maximum capacity of the network, and actual flow, preserved by deliberate acts of policy. This margin can provide for safety and comfort. With respect to pedestrians, the proportion of streets on which traffic has been calmed and bumpiness of walking surfaces are suggested as measures of quality.

- aa Pedestrian Policy Group, "Walking Forward". Transport 2000, London 1995  
8 Page Pamphlet  
Campaign pamphlet calls for national strategy drawn up with local authorities and others to halt the decline in walking.
- ddL Land Use Consultants, "City Walks in London" Government Office for London, 1995  
120 Page Report  
The report identifies a number of radial routes from five to ten miles in length linking open spaces, major tourist attractions and other places of interest which could be signposted and improved by minor street works mainly for tourist and leisure walking.
- aa Roberts, John and others, " Trip Degeneration: a Literature Review", Transport and Environment Studies, London 1992. 38 Page Report  
Bibliography in alphabetical order by author with one sentence summaries.
- aa Lothian Regional Council, Transportation Department, "Edinburgh Streetscape Manual", Edinburgh 1995  
40 Page Report  
Beautifully produced report on quality materials used in Edinburgh streetscape.
- aa Davis, Dr Robert, "Is it Safe: A Guide to Road Danger Reduction", Road Danger Reduction Forum, Leeds 1996. 30 page Pamphlet  
The principal source of danger on the road is motor vehicles. The pamphlet proposes ways of reducing the danger at source which must include reducing car use.
- eeL Gant, Robert and Smith, Jose, "Feet First in Kingston Town Centre: a Study of Personal Mobility", Kingston Polytechnic School of Geography  
Interviews with elderly, disabled, orange badge holders, parents with infants and a control group after traffic diversion to relief road and pedestrianisation of town centre.
- ddL Greater London Council, "A Pedestrian Network for Central London". 1983  
35 page report with fold out Ordnance Survey Maps  
The GLC used Greater London Travel Survey and other data sources to identify lines of very high pedestrian flows around BR and LT stations and proposed improvements in those areas in the context of an overall and more ambitious pedestrian network.

- ff National Consumer Council, "What's Wrong With Walking", London, Her Majesty's Stationary Office, 1987. 151 page Book  
Substantial survey, including 28,000 members, of conditions experienced by pedestrians. Most frequently cited problems: cracked or uneven pavements, dog dirt and too much traffic. Calls for pedestrians to be given higher priority in politics and planning
- ff National Consumer Council, "Pedestrians: An Action Guide to Your Neighbourhood Problems", 1987 89 Page Report  
Detailed advice on how to achieve local improvements in roads and streets.
- bb Mitchell, C G B, "Pedestrian and Cycle Journeys in English Urban Areas", Transport and Road Research Laboratory LR 497, 1973. 35 page Report  
Study of trip lengths on foot and cycle.
- cc Ganguli, B K, "Pedestrian Delay Studies", Greater London Council 1974 30 page Paper  
Study of methods of measuring pedestrian delay at zebra crossings. On one site pedestrians waited 13 seconds where vehicle flow was 2,000 per hour.
- e Wood, A, "Foot Streets in Four Cities", Norwich City Council, 1966. 32 page Report  
Observations on pedestrianisation in Dusseldorf, Essen, Cologne, Copenhagen. Retailers objected before implementation and supported after.
- dd Smith, Gavin, "Civilising London's West End" in The Architect's Journal June 1987 16 page Article  
Proposal for traffic reduction, a new street hierarchy and pedestrianisation over the West end, with many diagrams and illustrations.
- aaL London Centre for Transport Planning, "Pedestrianisation in London", Proceedings of Seminar. 80 page Report  
Text of speeches and questions. Speakers:  
Heiner Monheim: The role of pedestrianisation in urban planning  
Carmen Hass-Klau: Pedestrianisation on the Continent  
Brian Campbell of Ove Arup: Opportunities for pedestrianisation in Central London  
Paul Prestwood Smith: The way forward.
- cc Roberts, John and others, "Improving the Pedestrian's Environment", Transport and Environment Studies, London 1976. 75 page Report  
Report based on case studies of Kentish Town Road, an Inner London shopping street, Putney High Street and the central office area of Birmingham, proposes that streets with high pedestrian activity

should have vehicle traffic reduced, and facilities for pedestrians continuous and of adequate capacity with improved surface crossings as a step towards more complete pedestrian networks which would improve safety and convenience of walking by the most direct routes.

- ddL London Amenity and Transport Association, "Pedestrians in London: The Need for a Policy", London 1973 22 page Report  
Report called on the Greater London Council to develop criteria for measuring gains and losses to pedestrians in all traffic and highway schemes and to abandon or revise schemes which did not meet criteria.

- eeL Ove Arup and Partners for the London Centre for Transport Planning. "Pedestrianisation Study: Sloane Square and Trafalgar Square", London 1987

42 page Preliminary Report

Ove Arup considered the extent to which it is feasible to pedestrianise Sloane Square and Trafalgar Square without enlarging surrounding roads and concluded cautiously that phased introduction of partial pedestrianisation of Trafalgar Square was a practical possibility.

- eeL Ove Arup and Partners for the London Centre for Transport Planning. "Trafalgar Square: Pedestrianisation Study", London 1987 33 page Report  
Proposal for phased introduction of partial pedestrianisation of Trafalgar Square.

- dd Newby, Les and Sloman, Lynn, "Small Steps, Giant Leaps: a Review of the Feet First Project and the Practice and Potential for Promoting Walking", Environ and Transport 2000, 1996 (in press?) 50 page Report

The reports proposes pedestrian networks on which cars are restrained and priority given to pedestrians with high quality design and materials, promotion of compact cities as opposed to car-dependent out-of-town developments and public education to give walking a positive image. There is a review of the policies of local authorities participating in the Feet First initiative, followed by a description of individual projects carried out by them. The City of York receives the highest acclaim from the authors both for progressive policy and good practice. Finally the report includes a model policy for walking.

- cc Sandels, Stina, "The Skandia Report II: Why are Children Injured in Traffic", Stockholm 1974 87 page Booklet

Study of 182 police investigations into serious accidents involving child pedestrians or cyclists, suggested that improved training for children would not reduce accidents, since predominant causes were inadequate supervision of children and lack of knowledge by drivers



and supervisors of children's normal abilities.

- eeL Roberts, John, "Pedestrian Precincts in Britain", Transport and Environment Studies, London 1981. 165 page Book  
Survey of almost all (1304 out of an estimated 1450) pedestrian shopping areas in UK including arcades, pedestrianised streets and malls. Reports indications of commercial and popular success. In a small survey people gave priority to more interesting things to look at, freedom from crowding on footways and freedom from traffic. London has less pedestrian shopping than the remainder of the UK. Conflicts of interest have caused many pedestrianisation proposals to be abandoned. The Greater London Council paid scant attention to pedestrians in its policies and programmes.
- bb Hillman, Mayer, Adams, John and Whitelegg, John, "One False Move...", Policy Studies Institute, London 1990. 180 page Book  
The book argues that the rights and freedoms of children have been severely restricted by the increase in motorised travel. In 1990 only 9% of 7/8 year olds were allowed to go to school unaccompanied compared with 80% in 1971. Road accident statistics are regularly used to show that roads have become safer, whereas roads have become far more dangerous and consequently children are no longer permitted to use them independently. Adults spend vastly increased time escorting children, frequently by car, thereby exacerbating the danger to others. The Book suggests that different measures of road safety should be Published; for example the percentage of children of various ages who are permitted to come home from school on their own.
- bb Hillman, Mayer, Whalley, Anne, "Walking is transport", Policy Studies Institute, London 1979. 120 page Book  
Walking has been overlooked or inadequately recognised in transport policy. Travel survey data, such as the National Travel Surveys, which exclude short journeys have misrepresented the significance of walking. The interests of those groups most dependent on walking, pensioners, children and the low paid, have not been fairly addressed. Quantitative and qualitative research is needed in which pedestrians are given due weight with a view to achieving convenient and safe walking eventually on a total network.
- bb Hillman, Mayer, Henderson, Irwin and Whalley, Anne, "Transport Realities and Planning Policy", Political and Economic Planning; now Policy Studies Institute, London 1976. 196 page Book  
The book reports a substantial survey of mobility on an individual basis which was carried out because much published travel data is collected as or aggregated into trips per household. The wide inequalities in mobility both within households and society are identified. The book then proposes the concepts which should



influence overall planning starting with facilitating access which is partly a matter of spatial distribution, then providing for safe and convenient movement and finally minimising conflicts and costs.

- aa Thomson, J. M, "Great Cities and Their Traffic", Gollancz, London, 1977.  
Offers the profound maxim (p 47): "A short walk trip is the highest achievement of urban planning." Quotes (p 49) San Francisco study which portrays correlation between walk trips and residential density. Shows neglect of planning for walking around the world (p 47). "In about 600 reports and documents, assembled from all over the world in the course of this study there is practically no mention of pedestrians."
  
- dd Association of Metropolitan Authorities. "A Step Ahead: Improving the Pedestrian Environment", AMA, London, 1989 24 page Booklet  
A guide to improving conditions for pedestrians dealing with pavement obstructions, road crossings and security. Commences with the premise that more priority for pedestrians means slightly slower car journeys.
  
- cc CROW. "Wegwijzers maken voetgangers wegwijs", Ede, Netherlands, 1994.  
37 page Document  
CROW is a research institute which defines standards for roads and traffic management. This recommends two signposting systems for pedestrians: individual marking of each destination, and route marking with destinations signposted along the way.

## 7 CHECKLIST OF FURTHER ISSUES

These are issues which arose during the study and may need to be discussed and resolved in the preparation of the pedestrian strategy for London, and its application at the local level. The issues are grouped under a range of sub-headings, but are not mutually exclusive, nor in any order of priority.

### Issues Checklist

#### *Mobility-impaired users of pedestrian facilities*

Will creating good conditions for wheelchair users and others whose mobility is restricted automatically create good conditions for all pedestrians?

Planning for people with mobility or visual impairment. Does provision for these groups improve conditions generally for pedestrians? There is complaint about textured paving to help those with impaired sight (uncomfortable, unsightly). A guide has been produced by London Borough of Hammersmith and Fulham, which claims that poorly designed or laid paving can be dangerous. Other cities use less intrusive paving for this purpose (e.g. Netherlands, Berlin).

Carrying of goods. Surveys in Zürich revealed that pedestrians carry bags or luggage more frequently than car drivers. 21% of pedestrians carry a bag or load, compared to 15% of public transport users, 13% of car drivers, and 22% of car passengers. Surveys in Germany by Socialdata (1996) found that carrying goods is a reason why 25% of car trips are not or cannot be made on foot. Informal surveys by the authors in London at peak hours found 60% of pedestrians carrying medium or large bags, and a further 10% were using a "pedestrian vehicle".

Pedestrian vehicles are important to aid those whose mobility is impaired, and to assist people accompanied by young children. They include prams, buggies, shopping trolleys and wheelchairs. The requirement is for minimum changes of level, and for moderate gradients (1 in 20 is given as maximum grade in Dutch guidelines for wheelchair users).

Shopmobility: enabling good access in pedestrianised areas for those whose mobility is impaired. How can this be "designed in" to pedestrian schemes?

#### *Pedestrians and traffic management, parking controls*

Footway parking. Does London have adequate powers to prevent it? Enforcement?

Does substantial improvement of walking conditions require reduction of private motorised transport?

Have Red Routes made pedestrian conditions worse by speeding traffic flows and by enlarging the area for moving traffic (following reduction of on-street parking).

On-street parking is a danger to pedestrians, because it reduces their visibility, but it helps pedestrians by "sheltering" them when waiting to cross, and reducing the distance to be crossed (Russell and Hine, 1996). On street parking also reduces traffic speeds, other things being equal (unpublished research, Northrhine-Westfalia).

Highways Agency: announced (Highways & Transportation, Dec 1995, p2) improvements to London's main roads, cf its Landscape Strategy.

### ***The relationship between walking and cycling***

Is walking more important than and (where there is a conflict of interest) should it take precedence over cycling?

Relating walking to cycling: cycling on footways, the London Cycle Network. Cycling provision should not be at the expense of footway, but carriageway.

Who has priority on shared pedestrian/cycle paths? (current sign shows cycle on top of pedestrians)

### ***Data/surveys***

Monitoring: existing surveys need to be modified and improved to acquire reliable data on walking. New surveys will be required, but how are they to be funded?

### ***Pedestrian safety and security issues***

Security: feelings of insecurity are a major barrier to walking, especially amongst women and at night, and amongst parents on behalf of children. Some reactions may actually reduce the attractiveness of walking, and thus be counter-productive in the longer term, e.g. closing footpaths, removing vegetation, installing CCTV cameras. Lack of safety and security in walking to and from stations and bus stops (whether real or perceived) is a major deterrent to the use of public transport, especially in the evenings and at night. (\*\* GLC Women's Study; Crime on the Underground)

Security for traders/business. Similar considerations apply, in that security measures may discourage walking. Example: planning new developments without direct footway connections, or without direct access from the footway. An example of the latter is the shopping and leisure developments along Purley Way, Croydon.

Roller shutters over shop windows create a threatening environment out of shop hours. Amsterdam has a ban on shutters which do not allow people to see into the shop. In this case the security interests of shopkeepers seem to be at odds with the security interests of pedestrians, but secure shutters are available which meet both interests. Some shutters can be installed behind the shop window.

Crime and fear of crime/intimidation: this requires its own audit as part of

transport policy generally, including:

Safe design

CCT

Safety in numbers: more people walking depends not only on mode shift but also on viable and fully-let retail areas, and mixed uses.

Wolverhampton reports a drop in retail crime partly because of more activities in evening (Planning Week 15/2/96)

"24 hour city" or increasing time/density of pedestrians.

Empty pedestrianised shopping streets in evenings.

Road danger reduction

Safe House schemes. Started in Melbourne. Now 86,000 schemes in Australia (really?). Cardiff has the first scheme in Britain. Children walking to and from school can seek help by knocking on the door of a "safe house". The safe householders are vetted by the Police before they join the register; they display a safe house sticker in their window. They only have to take in a child, and then call the Police. This scheme is said to reduce parents' fear in letting their children walk to school alone, and thus could reduce escort trips.

#### *Quality of the pedestrian environment*

Parks. Local parks/ play areas are useful for reducing motor travel to recreation, they also require easy walking links to where people live.

Public conveniences. Letter to Guardian 29/4/96 suggests closure makes use of non-car modes harder (and says increased car use is often given as the reason for closure).

Creation of Greenways (green refers to environment; not necessarily vegetation:).

Investment in pedestrian "facilities" has to be good, i.e. has to improve both convenience and safety, not "minimise adverse impact". Residents' input may be contrary: e.g. closing alleys for security reasons.

Dogs. Fouling of footways is a major concern for pedestrians, especially for children (spitting causes similar problems). On the other hand the walking of dogs is a major activity, bringing enjoyment to owners, and bringing people onto the street who might otherwise not be walking, especially early and late in the day. Dogs are also seen by some owners as an answer to problems of personal security. Some pedestrians see the larger dogs as threatening. Can these conflicts be reconciled?





LONDON PLANNING ADVISORY COMMITTEE  
ARTILLERY HOUSE  
ARTILLERY ROW  
LONDON SW1P 1RT

Tel: + 44 (0) 171 222 2244  
Fax: + 44 (0) 171 222 2656  
Email: [lpac@lpac.gov.uk](mailto:lpac@lpac.gov.uk)  
Web: <http://www.lpac.gov.uk/>