CD INSTRUCTIONS

This CD is created in Adobe Acrobat pdf files. It has been created to allow you to navigate the CD by means of key links.

For example, the **Contents page (click here to view)**, has links to all the individual Chapters; just click on the Chapter you wish to view and you will be directed there.

Parking Strategies & Management

July 2005

Parking Strategies & Management

Contents

Contents

Contents

Contents

Contents

Acknowledgements

Thanks are due to the Department for Transport, the British Parking Association, the County Surveyors' Society, National Car Parks and the Rees Jeffreys Road Foundation for their financial support.

Thanks are also due to the Department for Transport and West Sussex County Council for the supply and use of photographs and diagrams. In addition we are grateful for the photographic and diagrammatic contributions and inspirations from the late Hugh Collis, Colin Eastman, Peter Guest, Andy Male, Tim Pharaoh and Mark Valleley.

Mike Sharpe
President

The Institution of Highways & Transportation
July 2005

Foreword

Welcome to the Institution's guidelines on parking strategies and management. They have been written to provide all practitioners with assistance in tackling the difficult and controversial issues that surround parking in a systematic way.

Some years ago the Institution recognised the need to bring together policy and practice associated with parking. Changes in policy have come about quite recently with the desire to manage demand of private car use and to improve the integration of land use and transport planning. By contrast parking practice has evolved over many years – mostly on an ad hoc basis as a response to real and practical problems experienced on the ground. This document seeks to bridge the gap between policy and practice, guiding the reader from the legislative framework, through to the development of a strategy and the implementation of changes in real places.

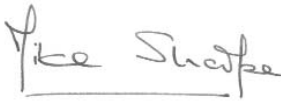
In preparing the guidelines we are grateful to the group of experts who offered the benefit of their knowledge and experience by putting much of it in writing. These include Keith Gardener, Mike Link, Colin Eastman, Peter Guest and Caroline Shepherd. Derek Palmer and Carlton Roberts-James also made an invaluable contribution to the work during their time working for the Institution, as has Peter Dickinson.

In particular I would like to pay tribute to the late Hugh Collis who provided a very significant amount of the text, drawing on his many years of experience dealing with parking issues. He was a fountain of wisdom and knowledge on the subject without which the guidelines would be the poorer.

I am also grateful to Mike Talbot, who provided input to the project on behalf of the Department of Transport, and our two technical editors – Tim Pharaoh and Tony Bolden – who undertook the mammoth task of bringing together the text in its final form. A number of individuals and organisations have also supplied, or given permission to use photographs, diagrams and figures that have enhanced the presentation of a complex and potentially dry subject. The project was made possible because of financial support from the DfT, the British Parking Association, the County Surveyors' Society and National Car Parks and has been overseen by Sheila Holden OBE who chaired the steering group charged with producing the completed document. The Institution is grateful for all these many and varied contributions.

Whenever a document of this kind is produced it will be a combination of timeless advice and information that will be out of date almost immediately. I am confident that the structured approach to dealing with parking issues set out in the text will assist those of you who are charged with developing unique solutions to specific local problems. Although policy shifts and changes in legislation are likely over the coming years, the guidelines bring together the existing policies and powers – many of which are now well used and have stood the test of time – in a way which should provide practitioners with a most valuable resource.

I hope that you will find it a useful source of information and advice as you strive to improve the way in which parking is managed – whether supporting the economy and regeneration, protecting the environment or improving the quality of life of the communities that we all seek to serve.



Index to Photographs

Chapter 1
Introduction

What do we mean by parking?

Parking is both a noun and a verb. For example, we look for a car park or we park our car on the street. It also qualifies various nouns, as in parking area, parking lot, parking ticket, parking charge, parking attendant, parking department, and so on. In *Parking Perspectives* (1) Valleley states that there is a fundamental distinction between the use of the word "parking" to describe the infrastructure provided for the storage of vehicles and "parking" as an activity forming part of the overall process of travel. He argues that more weight should be attached to the view of parking as a process embracing all these meanings of parking.

The array of different kinds of parking facilities, and the various laws, regulations, policies and codes that apply to them, can be daunting. Accordingly, within these guidelines will be found references to car, lorry, cycle, motorcycle, coach, bus and other sorts of parking. We may also refer to parking as a business, as a policy instrument, as part of traffic management and as an administrative operation.

As a starting point, the different types of parking are summarised in Figure 1.1.

How important is parking?

Most private vehicles are driven for only a small proportion of their life; the rest of the time they are parked. Parking takes up a lot of land and costs money to provide and maintain. Parking affects all of us, whether we are looking for somewhere to park, or coping with the impact of other people's parked vehicles. A survey of British households found that parking was the single most frequent cause of disputes between neighbours!

Another recent survey concluded that effective parking management was very important to the economic, environmental and social well being of the area in question (2).

Why is there a need to look at parking?

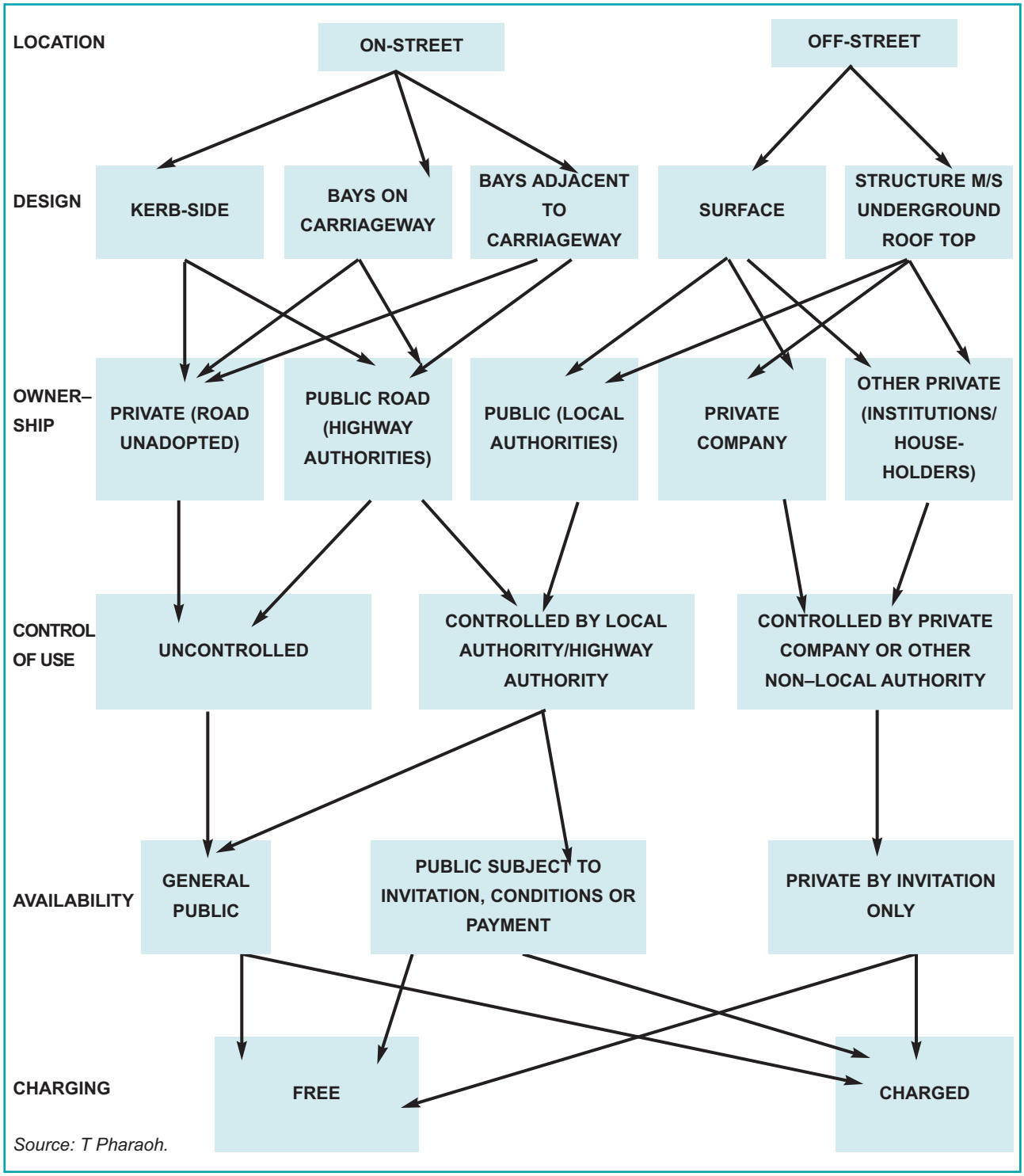
Two important changes have occurred in the way transport and planning issues should be addressed.

1. There has been a policy change whereby roads and parking are no longer provided in line with unquestioned increases in demand, the so-called "predict and provide" approach.
2. All aspects of land use and transport should now be planned and managed in an integrated fashion in order to achieve a wide variety of objectives. Parking is now a topic and activity to be

treated as part of a much larger system.

Given that there has been a shift in the approach to land use planning and transport in the United Kingdom, placing the moderation of car travel and the creation of more environmentally sustainable forms of urban development at the heart of national, regional and local policy, this has meant that local authorities and their partners are now presented with the challenge of translating the new policy objectives into action on the ground. The Institution of Highways & Transportation, with support from the relevant Government departments, decided that it should provide guidelines for local authorities and other practitioners within the parking arena that would help to bridge this gap between policy and practice, as well as assist in improving the quality of mainstream parking services and professional practice.

Figure 1.1.



Source: T Pharaoh.

Scope and purpose of the Guidelines

The Guidelines are arranged in 11 chapters within three sections: the policy context; objectives and measures; and implementation. In sections 2 and 3 photographs have been extensively used to amplify and illustrate the Guidelines.

Section 1 has three chapters.

Chapter 2 sets out the policy context within which local authorities should determine their own strategies for parking and how best to implement them. The national and regional policy context is outlined, including some comment about the position in Wales, Scotland and Northern Ireland, while more detailed policy statements are to be found in Annex A.

Chapter 3 summarises the powers available to local authorities, and the various processes, statutory and otherwise, which they should use. Annex B sets out items of key legislation.

Chapter 4 focuses on the preparation of a Parking Strategy. It advises on the process of preparation rather than the content, and is set out as a series of steps.

Section 2 has two chapters.

Chapter 5 provides guidance for local authorities on the setting of objectives for parking plans and operations and emphasises that these must be integrated with wider objectives concerning transport, development and quality of life.

Chapter 6 explores the content of a Parking Strategy, and explores a range of policies, schemes and protocols, which together are called “interventions”. It includes discussion of, and advice about, matters to be taken into account when formulating parking policy, and also about the type of projects to be included in a comprehensive Parking Strategy.

Section 3 has five chapters.

Chapter 7 provides guidance on how to implement the Strategy.

Chapter 8 deals with the process of involving and consulting the public and stakeholders in the process of developing parking plans and schemes.

Chapter 9 describes and advises on the various enforcement mechanisms for parking control that are needed to ensure compliance of third parties with various rules and regulations.

Chapter 10 focuses on the financial and economic aspects of local authority parking services, including guidance on the preparation of a parking business plan.

Chapter 11 emphasises the importance of marketing and communications in gaining acceptance and popularity for parking policies and schemes, and also in providing drivers with the information needed for them to make appropriate parking choices.

References

(1) Valleley, M, 1997, *Parking Perspectives*. Produced by the University of Westminster Transport Studies Group.

(2) British Parking Association, Unpublished Report — BPA Seminar March 2003.

Section 1
The Policy Context

Section 1
The Policy Context

Chapter 2 National and Regional Transport Planning Policies

The development of Parking Policies

Intervention to control and provide for parking was originally prompted by important but rather narrow concerns about safety and obstruction of traffic flow on the streets. Parking policy and management within local authorities consequently evolved as a number of separate activities or considerations, including:

- The management of parking on the highway;
- The planning of parking in new developments; and
- The provision and management of off-street public car parks.

Generally speaking, these activities were all geared to ensuring that sufficient car parking was provided to meet demand. For as long as this was the policy, and the wider impacts were not questioned, there was little difficulty in dealing with parking as a separate matter.

Over time, however, it became increasingly clear that the land use and transport trends were creating a whole range of problems, and this led from the 1970s onwards to a major change in policy.

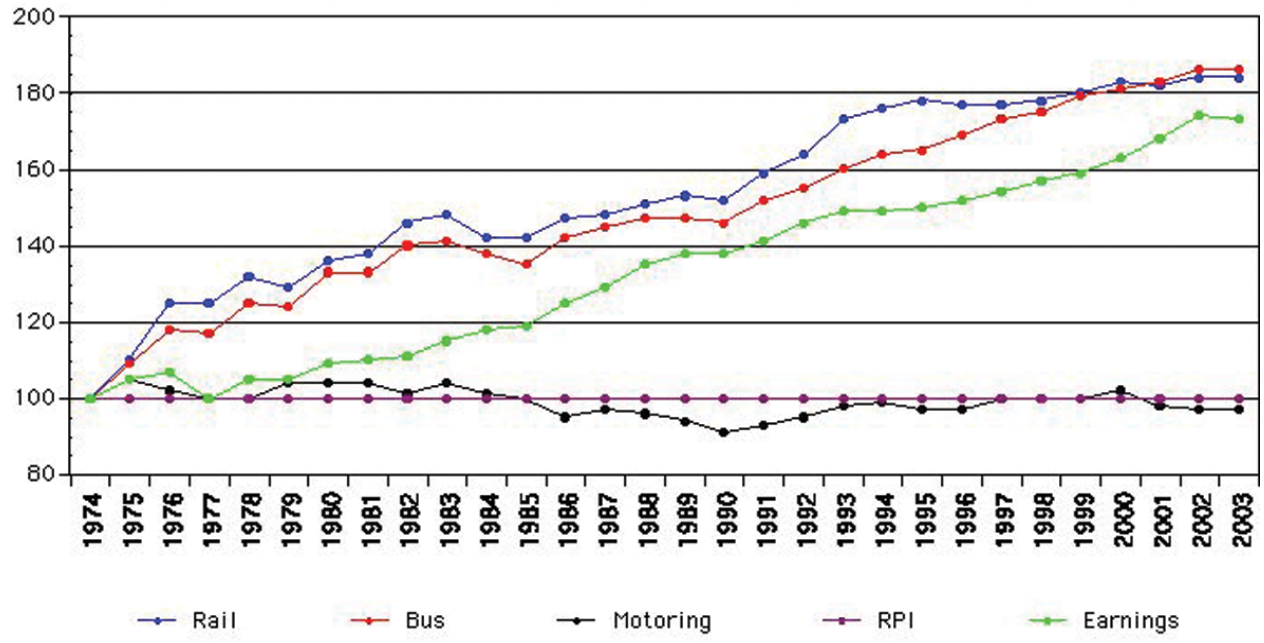
How car use and dependence has been encouraged

For several decades it was an obligation on the promoters of new development to provide sufficient parking to cater for expected demand and to ensure that no development resulted in potentially dangerous or obstructive parking on the street.

Planning policies allowed development to take advantage of locations served by motorways and other high standard roads. Patterns of land use development thus emerged that are difficult to access by means other than the car. This in turn resulted in many people adopting lifestyles that are car dependent, using cars to access workplaces, shops, leisure facilities and personal services not as a matter of choice, but as a function of habit.

Public investment frequently mirrored these trends, with new hospitals concentrating health care facilities in locations poorly served by public transport, whilst the education policies of parental choice resulted in longer journeys to school and a

Figure 2.1 Fares, motoring costs and earnings adjusted for inflation.



consequent increased use of cars.

It was not just land use change that promoted heavy dependence on the car. The car is attractive financially because people do not always perceive the full cost of making journey choices, at most considering only the marginal cost of fuel and parking. Once the capital and annual costs of running a car have been met, it is seen as wasteful to then choose to travel by public transport, thereby appearing to require payment twice over. Moreover, since 1974 motoring costs (in real terms) have declined and by 2003 were just below the 1974 levels, whereas in the same period bus and rail fares have increased by about 85% in real terms. Earnings during this period have risen by just over 70% in real terms. This is illustrated in Figure 2.1. Added to this is the appeal of a car as a desirable consumer product to be cherished as well as used, though this in itself does not generate dependence on car travel.

Land use and transport policy has now changed to moderate the trend towards increasing reliance on cars for personal travel, but the size of the task should not be underestimated. The car confers many benefits of personal access and choice, although as access to cars increases, these benefits are eroding. The cost and other advantages of the car, and car-based developments in and around our towns and cities, present major hurdles in bringing about a change of travel patterns. The management of parking can play a role in that change.

The emergence of parking as a policy tool

Parking is no longer a stand-alone issue, but has become a key aspect of both transport and land use planning. It must be integrated with all other aspects of urban policy now that it is to be managed at levels below "unfettered demand". This is necessary in order to promote and to support:

- Lifestyles that are less car-dependent;
- Transport provision that is more socially inclusive;
- Development that is more sustainable in terms of energy and pollution; and
- Settlements that are more attractive and user-friendly.

Control over the availability of parking spaces is a key policy instrument in limiting car trips, and for the time being is the most

widely available and readily accepted method of doing so. Even without control over private parking, strict control over public parking could have a major impact on travel choices (1). In most circumstances parking control is regarded as easier to implement and more appropriate than other measures such as road user charging. In the search for practical measures to influence the use of cars and people's choice of travel mode, outside of the London Congestion Charging Scheme, parking control remains the sharpest tool in the planner's shed.

As policy has moved from a "predict and provide" approach to one based on the achievement of wider objectives, the management of parking has become a more important part of national policy. It is becoming accepted that the unlimited growth of car use cannot be tolerated, as the infrastructure costs of providing the necessary road and parking space would be unacceptable in both financial and environmental terms.

Accordingly, a new policy framework has emerged in a range of Government documents, of which the most important are the Transport White Paper issued in 1998, the *Future of Transport* White Paper in 2004, the Transport Act 2000, the Traffic Management Act 2004, the *10 Year Plan, Planning Policy Statements* or Guidance Notes, particularly PPG13, *Regional Planning Guidance* (including Regional Transport Strategies), and a number of supporting documents and good practice guides. Some impetus was also given by the Traffic Reduction Act 1997, which required local transport authorities to report on how they intended to reduce traffic in their areas, or to explain why this was not seen to be appropriate.

Fuller details of the main policies appear in **Annex A.**

Of particular importance is **PPG 13.** This places strong emphasis on parking, since the availability of car parking has a major influence on the means of transport people choose for their journeys.

It takes a broad view of implementing parking policy in order to promote sustainable transport choices. Parking related to development should not be considered in isolation, but must be considered as an integral part of development, along with location, scale, design and access by other modes. The aim should be to provide access by public transport, walking and cycling as well as by the car. Transport Assessments, which the Guidance requires for developments with significant transport implications, should reflect this approach.

Implementation of previous guidance had been slower than expected. Research (2) suggested one reason lay with hesitancy on the part of local authorities in restricting parking, through the fear that developers would prefer to invest in other areas ready to provide greater amounts of parking.

Maximum levels of parking provision

PPG13 also sets a range of national maximum parking standards for certain types of development, above given thresholds. Maximum standards should be used as part of a package of measures to:

- Promote sustainable transport choices;
- Reduce the land take of development;
- Enable schemes to fit into central urban sites;
- Promote linked trips and access to developments for those without use of a car; and
- To tackle congestion.

PPG13 does not allow minimum standards for parking, other than parking for disabled people. The previous 1994 version of PPG13 had permitted local authorities to set maximum and minimum

standards. Thus this represents a significant shift in practice, from requiring at least as much parking as necessary to meet potential demand, to allowing no more than is consistent with policy to reduce demand.

Regional Planning Bodies and local authorities may adopt more rigorous standards, where appropriate. Maximum parking standards do not apply to small developments.

Parking additional to maximum parking standards can be provided where:

- An applicant has demonstrated that a higher level of parking is needed, though the applicant should also show the measures they are taking (for instance in the design, location and implementation of the proposal) to minimise the need for parking;
- Where retail and leisure developments are located in a town centre, or on an edge of centre site, provided the local authority is satisfied that the parking will genuinely serve the town centre as a whole.

More details about PPG13 appear in **Annex A.**

A strategic approach to parking standards

Local authorities are required to comply with national maximum parking standards. The existence of national and regional standards should remove the element of competition between local authorities based upon levels of parking provision.

Regional Transport Strategies (as part of Regional Spatial Strategies) must set a regional framework of maximum parking standards. These cannot be stricter than national standards, but they can be more rigorous. Such Strategies have a major role to play in coordinating planning policies for the location of development with policies for parking standards and charges. In particular, it can help avoid wasteful competition between locations and authorities based around the supply and cost of parking.

In considering the risk of developers relocating on grounds of parking provision, a number of points should be borne in mind:

- Developers and investors who bring forward schemes with excessive parking must be encouraged to change development formats. For example, schemes could serve more local catchments that are accessible by walking, cycling and public transport, or incorporate home delivery services;
- Not all types of development are vulnerable to being switched to other areas. For example, a supermarket will be planned to serve a particular residential market and is unlikely to be relocated, whereas a speculative business development is relatively "footloose";
- "Giving in" to developer demands for higher levels of parking perpetuates the problems that PPG13 policies are trying to solve, and will therefore store up problems for the local authority in the long term.

Wales, Scotland and Northern Ireland

The provisions of the Road Traffic Regulation Act 1984 and the Road Traffic Act 1991 extend to England, Wales and Scotland. However, the Traffic Management Act 2004 will repeal the Decriminalised Parking Enforcement (DPE) provisions in the Road Traffic Act in England and Wales but not in Scotland. Further information about DPE provisions appears in Chapter 9.

Responsibility for the parking and traffic regulation provisions in Scotland and Wales has now been devolved respectively to the Scottish Executive and to the

National Assembly of Wales. The following procedure regulations apply to the making of Local Authority Orders:

- The Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1996
- The Local Authorities' Traffic Orders (Procedure) (Scotland) Regulations 1999.

Highways and traffic control matters in Northern Ireland are under Central Government control and there is no equivalent of local highway and traffic authorities there.

References

(1) DOT, 1997, Study of Parking and Traffic Demand: Stage Two: Bristol Case Study: Parking Control Strategies: Assessment of Demand Changes, report by MVA.

(2) DETR, 1997, Planning Policy Guidance on Transport (PPG13): Implementation 1994-1996.

DETR, July 1998, *A New Deal for Transport: Better for Everyone. The Government's White Paper on the Future of Transport.*

DETR, December 1998, Breaking the Logjam.

DETR, March 2000, *Guidance on Full Local Transport Plans.*

Government Office for London, February 1998, *Traffic Management and Parking Guidance for London.*

DETR, Traffic Advice Leaflet 5/95, *Parking for disabled people.*

DETR, July 2000 Transport 2010 The 10 Year Plan.

DfT, Transport Act 2000.

DfT, Traffic Management Act 2004.

DfT, The Future of Transport 2004.

Strategic Rail Authority, November 2001, *Land Use Planning Statement.*

Strategic Rail Authority, January 2002, *The Strategic Plan.*

Department of Transport, 1995, Circular 1/95, *Guidance on Decriminalised Parking Enforcement Outside London.*

PPG1: General Policy and Principles (February 1997).

PPG2: Green Belts (January 1995).

PPG3: Housing (March 2000).

PPG6: Town Centres and Retail Development (June 1996).

PPG11: Regional Planning (October 2000).

PPG12: Development Plans (December 1999).

PPG13: Transport (March 2001).

Chapter 3 Powers and Processes

Introduction

National and regional policy has to be interpreted and implemented at the local level through development plans and Local Transport Plans. This chapter covers the main powers and processes that are relevant to parking, grouped under two headings:

- 1. The planning system, particularly the role of parking in Transport Assessments and Travel Plans;
- 2. Traffic and transport powers and processes covering on-street and off-street parking including parking charges.

The Planning System

Development Plans and Frameworks

The Government has recently amended the planning system to improve its effectiveness (1). The changes include the removal of Structure Plans. Instead, District, Unitary and Metropolitan Councils should prepare Local Development Frameworks, which would replace the Local and Unitary Development Plans. These Local Development Frameworks would not be fully site specific, although some areas of change would have site specific policies. Regional Spatial Strategies, including those prepared for sub-regions, would provide the strategic overview.

For these guidelines, references to development plans are taken to include all planning documents that will form a "material consideration" in decisions on individual planning applications. Thus draft revised development plans and statutory supplementary planning guidance documents, and development briefs adopted by resolution of the local authority will all form a key part of the planning framework. For brevity and simplicity, the entire framework is referred to as the Development Plan.

The planning system operates with the principal objective of regulating the development and use of land in the public interest. It has two main parts: a framework of development plans and development control. A third element is the role of the Secretary of State in determining planning policy, and deciding planning appeals and some important applications. Following a decade of a relatively *laissez faire* approach to land use planning, the 1990 Town and Country Planning Act (amended by the Planning and Compensation Act 1991), re-instituted a plan-led system with decisions on individual planning applications being made in accordance with the Development Plan. The Development Plan has an

important function in providing the framework for parking at new developments, including setting out the maximum amount of parking that can be provided in different circumstances, and the planning obligations and developer contributions that may be sought.

Following the "plan-led" system there has been an increasing emphasis on positive planning to achieve urban regeneration and revival – a so-called "urban renaissance" – spearheaded by the report of the Urban Task Force, and the subsequent Urban White Paper. There is a large array of guidance and best practice documentation, in which the need to reform the approach to parking provision and management is a prominent theme. Some references are provided at the end of this chapter.

Responsibility for preparing development plans lies at local level, with the local planning authority responsible drafting the plan, consulting on it and holding a public inquiry. Once the authority has received the inquiry report and adopted the Plan it is submitted to the Secretary of State for approval. Therefore, although local authorities have considerable discretion in preparing plans, they should not receive the approval of the Secretary of State if they are contrary to the relevant national or regional polices.

Parking policies and standards will be a key part of these new plans and frameworks. Until recently development plans confined their content on parking to the specification of parking standards in new developments. The requirement now to specify maximum standards means that the scope of parking-related policies will need to be broadened. The parking elements will now need to consider:

- Use of a wide range of tools such as charges and on-street controls;
- Use of parking as part of an integrated transport and planning package for particular areas;
- Requirements for applicants to submit Transport Assessments, with proposed parking as an output of the analysis;
- Indications of developer contributions that will be sought towards the cost of transport provision and investment; and
- Supplementary Planning Guidance for on-street and urban design and other matters where parking will be an important factor.

Development Control

Development control is the process whereby decisions are taken on individual applications for development. Given the key role of parking provision as a policy instrument, negotiation of the amount of parking in a new development should feature prominently in the development control process.

The amount, type and design of parking are a critical part of any planning application. However, the focus is moving away from a direct simple relationship between the amount of floor space in a new development and the amount of parking required. The focus now is on determining parking provision in accordance with policy, and specifically in relation to accessibility. A more sophisticated approach is demanded, using an overall Transport Assessment of the development, whereby the demand for parking, and the method of its accommodation is an output of the analysis.

The amount of parking provided as part of a new development is now subject to a maximum level. Whilst the overall maximum level for developments over a certain threshold size is specified in PPG13, there will be other maxima determined in the regional transport strategy, and within that by the local authority as part of its Development Plan.

There will thus be a hierarchy of maximum parking levels, but the only one relevant to a particular development will be the lowest one.

Local authorities will determine maximum parking levels for different types of development, and these may vary between different parts of the local authority area. For example, the lowest levels are likely to be set for town centres and other areas that are highly accessible by non-car modes of travel. The highest levels allowed will be for areas with less good access by non-car means, although this must be done in such a way as not to create the perverse effect of encouraging development in such locations. To meet this requirement, the range of levels should be kept as small as possible.

The hierarchy of parking standards is shown in Table 3.1, which also includes a theoretical example of regional and local standards.

The amount of parking in any individual development would be negotiated as low as possible, and no higher than given in the last row of the table. The figures in that row would be specific for different kinds of development. They may also include types and sizes of development for which maximum parking levels are not specified in national or regional guidance, but where the local authority has adopted its own standards.

Transport Assessments

PPG13 places particular emphasis on accessibility to development by public transport, walking and cycling as part of a more integrated approach to planning and transport. To help implement this approach it is necessary to work out how people will access new development, including the proportions by each mode of travel. The proportion using cars thus becomes an important factor in determining the amount and type of parking that should be provided. PPG13 introduced the Transport Assessment (TA) as the mechanism whereby this can be implemented. TAs are to be submitted alongside planning applications for new development that have significant transport implications.

Applications requiring a TA are for those developments over certain threshold sizes set out in the table of maximum parking standards (see Annex A), although the planning authority can also require a TA for smaller developments if they have potentially significant impacts.

The three main elements of a Transport Assessment are:

- Assessing the travel characteristics of the proposal;
- Setting out measures to influence travel to the site; and
- Assessing the transport impacts of the development.

The ODPM is preparing good practice guidance (2) on the preparation, scope and use of TAs. The Scottish Executive published guidance on Transport Assessments in 2002. (3)

TAs provide a broader approach to assessing development

Table 3.1 Example of how maximum parking levels are set.

PPG13 maximum parking levels			
National maximum parking levels – all areas (fixed)			
Regional Transport Strategy maximum parking levels (example)			
Rural areas	Urban areas		Town and city centres
90% of national maxima	70% of national maxima		50% of national maxima
Local authority Development Plan maximum parking levels (example)			
Rural areas	Suburban areas	Inner areas and public transport nodes	Town centres
100% of regional maximum	80% of regional maximum for urban areas	60% of regional maximum for urban areas	50% of regional maximum for urban areas, and a presumption of zero private non-residential provision

proposals than previously was the case with Traffic Impact Assessments (TIAs). They start by considering the accessibility to the proposed sites by all modes and the likely modal split of journeys to and from the site. They also set out details of measures proposed to improve access by public transport, walking and cycling, to minimise the amount of parking associated with the proposal and to mitigate any resulting impacts. Where it is shown to be necessary, the required mode split to the development may require intervention by means of a Travel Plan, which should also be submitted with the planning application.

Parking as an output

The key point in relation to parking is that the TA will demonstrate the number of parking places as an ***output*** of the process; not an input as with TIAs. Parking levels should be determined after access to the site by all modes has been fully assessed, and after the impact of measures to increase access by non-car modes has been taken into account. The role of parking standards in this will be to indicate to those carrying out a TA the maximum amount of parking that will be allowed. This can be compared with the output of the TA. If the initial calculations indicate a demand for car access (and hence parking) above the level that is allowed, then an iterative process of design and negotiation will be required to bring the development scheme into line with policy. Changes will be necessary to one or more of the elements influencing car demand.

Applicants should be encouraged to devise schemes with parking significantly below the maximum allowed. Applicants may also propose lower levels. In either case applicants will need to demonstrate and justify their confidence in the take up of non-car modes in order to ensure that the development will operate without creating problems of overspill parking in adjacent streets.

Area-wide TAs

In areas that are subject to many planning applications, the need for intensive negotiation on individual applications can be greatly reduced if an area-wide assessment of accessibility is carried out. Amongst other things, this can provide a more precise indication of the level of parking that will be allowed. Such assessments may form part of development briefing exercises, undertaken by local authorities or their agents. The ODPM is also offering guidance on the strategic assessment of accessibility. (4)

Design of parking and other access

The TA guidance also provides advice on the design of parking in new developments. Parking provision should be sited so as not to obstruct pedestrian and cycle routes or access to public transport. It should not be given “pride of place” close to the main entrance to the development, and access by foot and cycle should have at least equal priority. An exception to this may be parking for the mobility impaired (Blue/Orange badge holders), which should be as close as possible to a fully accessible entrance of the development. This new emphasis on non-car modes in TAs should help ensure that off-site highways work and on-site layouts incorporate high quality accessibility for pedestrians, cyclists and public transport users as an integral part.

Travel Plans

PPG13 indicates that the relevance of Travel Plans to planning lies in the delivery of sustainable transport objectives, including reductions in car use (particularly single occupancy journeys). There is little point in requesting or agreeing lower levels of parking associated with

a development if this means that the viability of the development is undermined. One response is to change the format of the development to lower the parking demand. Another is to use various means to encourage access other than by car, and this will involve the use of Travel Plans (see Figure 3.1).

PPG13 argues that Travel Plans should be submitted alongside planning applications that are likely to have significant transport implications. The existence of a Travel Plan, however, is not a reason for an unacceptable development to be approved.

There is no standard format or content for Travel Plans. Further advice is available from a number of sources (see the references at the end of this chapter).

Travel Plans should contain measurable outputs tied to a particular date or period. They should ideally be related to any mode share or car mode share targets in the Local Transport Plan. They should also set out arrangements for monitoring progress, as well as changes or actions required and enforcement "triggers", if the agreed targets are not met. They may be made binding either through conditions attached to the planning permission or through related planning contributions.

There are many measures that can be included in Travel Plans directed at discouraging car use. The following are examples:

- Reducing the level of on-site parking;
- Charging for parking;
- Allocating all or a proportion of parking spaces to car sharers so as to reduce single occupancy journeys;
- Issuing information on travel choices to occupants of developments, for example through estate agents; and
- Financial incentives such as public transport travel cards provided by companies for their employees, or cash compensation for parking spaces foregone.

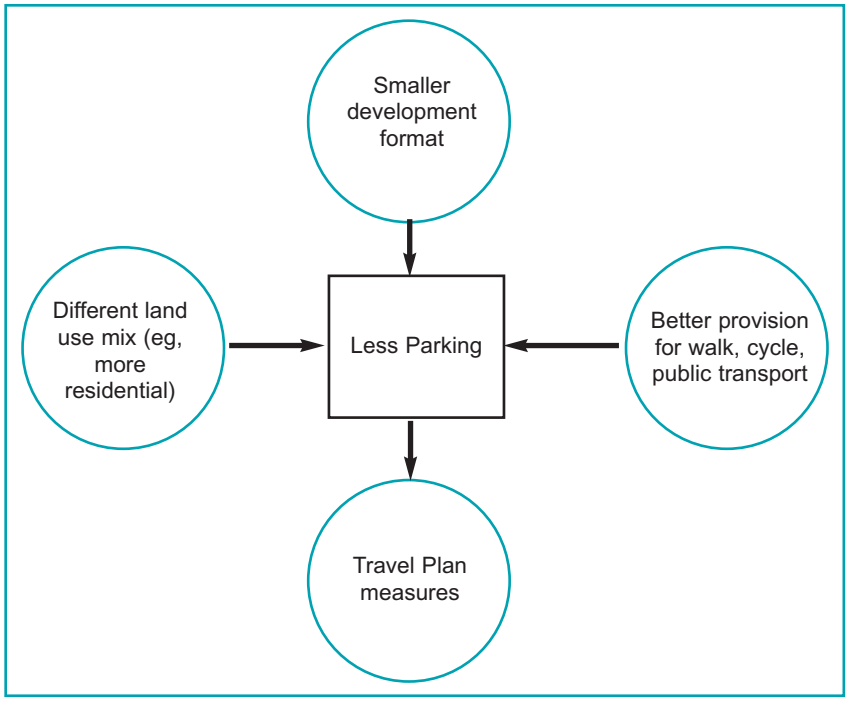
The Government has shown a considerable commitment to Travel Plans, funding local authority Travel Plan co-ordinator posts as part of the Local Transport Plan process. However, there is still much resistance to Travel Plans, especially in parts of the development industry, with many people seeing them as just another "hoop to jump through" to obtain planning permission. There is also concern about what powers local authorities have to ensure their enforcement if the targets set in them are not achieved. Other parts of the development industry, however, do appear to recognise their value in making developments more sustainable and hence more commercially viable.

Developers are generally more willing to support the TA and Travel Plan process when it is uniformly and fairly applied, and where it leads to more profitable use of the development site.

Planning Conditions and Contributions

Individual planning decisions can have planning conditions and contributions attached to them. A

Figure 3.1 The "Reconciliation Process" in Transport Assessment.



local authority should set out its main requirements and expectations in the Development Plan and the Local Transport Plan, while more specific requirements should be determined following the output of the Transport Assessment. PPG13 argues that

> *"Local planning authorities should take a more pro-active approach towards the implementation of planning policies on transport, and should set out sufficient detail in their development plans to provide a transparent basis for the use of planning conditions if appropriate, and for negotiation with developers on the use of planning obligations as appropriate, to deliver more sustainable transport solutions."*

Planning Conditions

Planning conditions must be justified in accordance with the Government's Circular 11/95 (5). They can be used to require on-site transport measures and facilities as part of the development or to prohibit development on the site until a particular event has occurred. These can include specifying the number and type of parking spaces, including for disabled people, and the management and use of parking spaces, for example either to ensure that priority is given to certain categories of people, or that spaces are available for shared use. It is important to note that 'specifying' in this context relates to the number agreed following any negotiation between the planning authority and the developer, taking account of the Transport Assessment calculations, and being no higher than the appropriate maximum level specified in the Development Plan (see Table 3.1 above).

PPG13 states that developers should not be required to provide more parking than they themselves wish. It does, however, allow planning conditions to specify the number of parking spaces in certain circumstances, for instance at the conclusion of a TA process for a particular development and in relation to parking for disabled persons, but in essence local authorities should no longer "require" extra parking provision. In practice local authorities and others have been very slow to grasp this point and to change their practices accordingly.

Planning Contributions

Planning contributions, (previously planning obligations and known frequently as section 106 agreements), are agreements between the local planning authority and a developer that are negotiated in the context of granting a planning consent. They provide a means of ensuring that developers contribute towards the infrastructure and services that the local authority believes are necessary to facilitate the proposed development. Contributions can be in cash or in kind.

As a matter of good practice, the Development Plan can indicate the likely nature and scope of contributions that will be sought to transport improvements (and other things) as part of a development in a particular area or on key sites. This will give greater certainty to developers as to what will be expected as part of the development proposal and also provide a firmer basis for investment decisions in the plan area. Circular 1/97 (6) sets out statutory and policy tests. In particular it sets out the so-called Necessity Test, which requires that contributions (obligations) be:

- Necessary
- Relevant to planning
- Directly related to the proposed development
- Fair and reasonable, related in scale and kind to the proposed development
- Reasonable in all other respects.

However, it should be noted that the Government is considering issuing new guidance.

With parking provision negotiated at levels below that which would accommodate "unfettered" demand, it will in many cases be necessary to implement measures that both encourage and provide for access and travel by other modes, and to control car parking on streets and roads near to the development. Contributions from the developer can be sought towards the costs of such measures, and may be essential in order for the development to function as intended.

PPG13 points out that, since there are no longer minimum parking requirements for development, *"it is inappropriate for a local authority to seek commuted payments based purely around the lack of parking on site."* The attraction of commuted payments in lieu of parking spaces not provided on site was that they could be calculated to a simple formula, such as £3000 per space.

The new approach needs to be more sophisticated, but must also appear to the developer to be logical and fair. Payments should be negotiated on the basis that the development will generate demands for access, and contributions may be appropriate towards the costs of any necessary access improvements. Since access is to be no longer simply access by car, the contributions logically should also relate to modes of travel other than the car. For example, they could be contributions towards the provision of Park-and-Ride schemes where this will improve accessibility to the site by public transport, or towards the cost of introducing on-street parking controls in the vicinity of the site to ensure that the lack of provision on-site does not lead to local environmental or safety problems. Other contributions might be towards the cost of pedestrian crossing facilities, bus priority and other facilities, short-term "pump-priming" of public transport services, cycle facilities and Travel Plans. The measures to be negotiated will depend on the circumstances, and there is no restriction provided that the criteria laid down in Circular 1/97 are met.

Local authorities have found negotiations more successful where:

- The improvements required are clearly set out in local Development or Transport plans;
- The contributions likely to be sought from developers are indicated in the Development Plan; and
- The contribution is tied in with a realistic timetable for implementing transport improvements.

Transport Powers and Processes

Local Transport Plans

Local Transport Plans (LTPs) are prepared on a five-year cycle. The first round of LTPs, for financial years 2001/2 to 2005/6 were submitted to Government in July 2000 and the second is currently scheduled for July 2005. These plans include a statement of local transport policies and a bid for capital and highway maintenance funds to implement the policies. A monitoring report is generally required annually, with the option to submit further bids for major capital schemes that had not been fully worked up at the time of the main submission. (Some authorities deemed to be "excellent" are excused from submitting full Annual Monitoring Reports, although in practice many do so.) Capital funds for the implementation of parking schemes in support of LTP policies can be accessed through the LTP, but revenue costs should be covered by income from the scheme. County and Unitary authorities make LTP bids. In Metropolitan Areas

the Metropolitan Councils and the Passenger Transport Authority are required to submit joint LTPs.

Local authorities have considerable discretion in developing their LTPs, and are required to consult on them. Indeed the draft guidance for the second round of LTPs offers the prospect of more flexibility than for the first round. However, the Secretary of State, who will expect LTPs to reflect national policies if funding allocations are being sought, approves the funding bids. In 2000 most regions did not have a Regional Transport Strategy (RTS) in place, and those that were in existence had not been fully developed in accordance with PPG 11, which was only in draft form at the time. It is expected that all RTS will be revised by the time the next full LTP submissions are made in 2005 with the RTS providing the strategic framework.

The LTP sets the context for parking as it relates to transport policy and management.

It may include, for example:

- Investment in parking and related infrastructure, including park-and-ride;
- Parking control schemes, including conversion to decriminalised parking enforcement;
- Policies for the setting of parking tariffs and charges, in line with regional policy;
- Reference to planning policies for parking in new development;
- Investment in alternative means of access in connection with reduced parking;
- Parking changes that may result from Travel Plans;
- A parking strategy including schemes and policies.

Guidance on how to develop a Parking Strategy is set out in Chapter 4.

Transport powers

The transport powers relating to the provision and management of parking are outlined below. The main provisions are contained in three Acts of Parliament:

- The Road Traffic Regulation Act 1984 (the 1984 Act);
- The Road Traffic Act 1991 (the 1991 Act); and
- The Traffic Management Act 2004 (the 2004 Act).

In addition, workplace parking levy powers are contained in the Transport Act 2000, and in the Greater London Authority Act 1999 for London. There are also various London Acts covering different levels of parking enforcement.

The Authorities responsible

Local authority requirements for car parking, especially off-street car parking, are a significant determinant of the amount of land required for new developments and, as such, are a key influence on the ability to provide sustainable patterns of development. As such, it will be for the local planning authorities, working in conjunction with local highway authorities and Regional Planning Bodies, who will largely set the overall parking standards throughout the country, with particular emphasis on new and converted development. However, it will be for the local highway authority (or the authority responsible for preparing the Local Transport Plan), who, as the body responsible for maintaining the highway, will be responsible for the development of a Parking Strategy in conjunction with other authorities and organisations. The situation in practice will be more complex, because of agency agreements between authorities and the statutory involvement of bodies like the Highways Agency.

Road Traffic Regulation Act 1984

The 1984 Act (as amended) sets the legal basis for making traffic regulation orders (TROs), which are necessary for schemes to control and charge for parking. The powers contained in this Act are wide and flexible, and the purpose of any order can be to achieve one or more of the following:

- Avoiding danger;
- Preventing damage;
- Facilitating the passage of any class of vehicle;
- Preventing the use of roads by vehicular traffic which is unsuitable;
- Preserving the character of a road for pedestrians and horses; and
- Preserving or improving the amenities of an area.

Essentially there are powers available to traffic authorities to make a TRO for any scheme to tackle the above purposes, whether on-street or off-street, and whether or not charges are to be made for the use of parking spaces.

There are separate powers for outside London and within London.

More details about this legislation and the processes for making a TRO are set out in **Annex B.**

Road Traffic Act 1991

To tackle the enforcement of parking regulations more effectively, powers were given to local authorities in 1991 to take over enforcement of parking regulations from the Police. This meant a change of action against offenders based on civil rather than criminal law, a process referred to as “Decriminalised Parking Enforcement” or DPE. The 1984 Act provisions for the making of Traffic Regulation Orders are needed alongside the 1991 Act.

For details about this Act and the decriminalisation of parking offences in particular see **Annex B.**

Traffic Management Act 2004

This Act applies to England and Wales but not to Scotland and Northern Ireland. In addition there are a number of specific references to circumstances in London.

Different parts of the Act are coming into force at different times and implementation mostly is linked to the publication of statutory guidance, the first of which on the network management duty was published in July 2004. The Act is set out in seven parts. Of particular reference to parking is the network management duty placed upon local traffic authorities; the civic enforcement of traffic contraventions, including in particular those on parking offences and on parking provisions in special enforcement areas; and on surplus parking income. For further details about this Act see Annex B.

Road User Charges and Workplace Parking Levies

Local authorities are provided with the power to introduce two fiscal measures designed to limit car use, and to generate revenue for local transport improvements. These are Road User Charging schemes (RUC) and Workplace Parking Levies (WPL) that, if implemented, would be in addition to the scope for parking controls and charges provided by earlier Acts. The Transport Act 2000 gave the necessary powers to English and Welsh local highway authorities. In Greater London similar powers were granted in the Greater London Authority Act 1999 and were used for the Central London Congestion Charging Scheme, which started in February 2003.

More details about workplace parking levies and road user charges appear in Chapter 7 and Annex B. Currently, Nottingham

City Council is the only authority considering introducing a WPL scheme.

Parking charges

Unlike workplace parking levies, charges for publicly available parking are widely used. By 2002 there were no more than a handful of towns where all public parking was free of charge. The 1984 Act contains the main legal provisions with regard to parking charges.

Local authorities may:

- Charge for parking in off-street car parks (under section 35 of the 1984 Act);
- Charge for parking in on-street parking places (under sections 45 and 46 of the 1984 Act).

Charging for on-street parking requires an order to be made. An order is not required for off-street parking unless penalties are to be imposed through penalty notices. Privately owned car parks for public use must operate without an order, unless there is an agreement with the local authority.

The legislation provides for payment to be made to a meter or ticket machine, or indicated by a parking device (which can be a card, disc, token or other similar device). It also provides for the issue of permits (with or without charge) allowing vehicles to use parking places.

Provisions can also be made for on-street parking places to be reserved for special categories (or classes) of vehicle and for special charges to be made or permits issued for those classes of vehicle.

Section 46 of the 1984 Act provides for “initial” and “excess” charges at on-street parking places and Section 47 makes it an offence to park for a period longer than the excess charge period or to fail to pay the initial charge. Where enforcement is decriminalised, the 1991 Act replaces these with “parking” and “penalty” charges.

When introducing on-street parking schemes, local authorities must have regard to the purpose of the powers incorporated in both the 1984 and 1991 Acts. In particular, they are not fiscal measures. The aim should not be to raise revenue, but to serve a policy objective such as to reduce congestion. However if, as a result of setting enforcement or parking charges to meet the objectives of the scheme, income exceeds that required simply to cover expenditure, this is acceptable.

Further advice on parking policy and charges is given in Local Authority Circular 1/95, (7 and 8). The advice for London authorities is somewhat wider than Circular 1/95 (for example it includes advice on permit policy and charges) but it is a useful reference for any local authority.

Additional parking charges

Under decriminalised parking, the penalty charge, any charges paid to secure the release of a clamped (immobilised) or impounded vehicle (after tow-away), and storage and disposal charges are known collectively as “additional parking charges”.

Additional parking charges are set, in London, by the Association of London Government’s Transport and Environmental Committee (subject to the approval of the Mayor of London) and in the rest of England by the Secretary of State. There are currently three penalty charge bands in London and another three for areas outside London.

Use of surplus funds

Chapter 10 and Annex B provides further details on such funds. There are different rules for the use of surplus funds for on- and off-street parking, with the latter being much less constrained. Inclusion of local environmental improvements is a recently added item.

Residential parking

A national maximum parking standard is provided for residential development. PPG 3 (9) requires off street parking in new residential developments to not exceed on average 1.5 parking spaces per dwelling. It should be emphasised that limited parking in residential development must be taken into account by local authorities in order to contribute to the wider objective of good urban design and making the best use of land. This guidance does not apply to Scotland, Wales and Northern Ireland.

Residents' Parking Permits

The 1984 Act contains the main powers for local authorities to provide permits for residents or certain other classes of user. Such permits confer parking privileges, usually in return for the payment of a fee. On-street residents' parking bays can be defined either for the sole use of permit holders, shared with visitors paying at a meter or in some other way. Chapter 7 has more details.

References

(1) Planning and Compulsory Purchase Act 2004.

(2) ODPM 2003 Transport Assessment: good practice guide for development proposals (forthcoming).

(3) Scottish Executive, 2002, Guide to Transport Assessment for Development Proposals in Scotland research report and Scottish Executive 2003 Draft consultation guide on Transport Assessment for Development Proposals in Scotland (forthcoming).

(4) ODPM 2003 Accessibility in Plans: good practice guide for regional and local plans.

(5) DoE, 1995, Circular 11/95 Use of Conditions in Planning Permissions, (Welsh Office version 35/95).

(6) DOE, 1997 Circular 1/97.

(7) DoE, Local Authority Circular 1/95, Guidance on Decriminalised Parking Enforcement Outside London.

(8) DETR, 1998, Traffic Management and Parking Guidance for London. (Welsh Office Circular 26/95).

(9) PPG3 – Housing DETR 2000.

Road Traffic Regulation Act, 1984.

Additional parking charges in London.

Penalty charge	Band A	£100
	Band B	£80
	Band C	£60
Recovery of towed-away vehicle		£150 (max)
Recovery of clamped (immobilised vehicle)		£65 (fixed)
Pound storage charge (per day)		£25 (max)
Vehicle disposal charges		£65 (max)

There is a discount of 50% for payment within 14 days of the issue of a Penalty Charge Notice.

Additional parking charges outside London.

Penalty charge	Band 1*	£60
	Band 2*	£50
	Band 3*	£40
Recovery of towed-away vehicle		£120 (max)
Recovery of clamped (immobilised vehicle)		£40 (max)
Pound storage charge (per day)		£12 (max)
Vehicle disposal charges		£50 (max)

Note * - There is no official way of referring to the three penalty charge bands outside London. This note uses numbers to avoid confusion with the London Bands.

(Source: British Parking Association, February 2002, Technical Note 1 Charging for parking - some considerations and ALG 2004).

Town and Country Planning Act, 1991.

Road Traffic Act, 1991.

Greater London Authority Act 1999.

Transport Act 2000.

Traffic Management Act 2004.

DfT, 2000, A Travel Plan Resource Pack for Employers.

DfT, 2002, Making Travel Plans Work, a suite of documents including Research Report, Case Study Summaries, and Lessons from UK Case Studies.

DfT/ODPM, 2002, Using the Planning System to Secure Travel Plans: Best practice guide.

DETR, 1998, Places Streets and Movement a companion guide to Design Bulletin 32, Residential Road and Footpaths.

Llewelyn-Davies, 2000, Urban Design Compendium, for English Partnerships and The Housing Corporation.

Llewelyn-Davies, 1998, Sustainable Residential Quality: New Approaches to Urban Living, published by LPAC, with DETR, Government Office for London.

Llewelyn-Davies, 2000, Sustainable Residential Quality: Exploring the Housing Potential of Large Sites, published by LPAC, with DETR, Government Office for London, The Housing Corporation, London Transport.

DETR/CABE, 2000, By design: Urban design in the planning system: towards better practice.

DTLR/CABE, 2001, Better places to live: By design.

The Institution of Highways & Transportation, 1999, *Planning for Public Transport in Developments*.

The Institution of Highways & Transportation, *Transport in the Urban Environment.*

The DfT has also published a range of Traffic Advisory leaflets and Local Transport Notes that cover many of the detailed aspects of design.

Chapter 4
Preparing a Parking Strategy

Introduction

Local transport authorities are no longer required to prepare a parking strategy as part of their Local Transport Plan (LTP). It nonetheless provides an opportunity to set out a comprehensive policy and delivery statement about parking within the context of overall transport and land use policies. This chapter sets out guidance on the process of preparing such a Strategy, including the definition of its scope and purpose, and the various steps involved. These steps are summarised in Figure 4.1.

Requirements of a Parking Strategy

A good strategy needs to meet a number of requirements, and the process of preparation should be designed to ensure this. Although the list of requirements may appear daunting, a Parking Strategy may need to resolve difficult and potentially controversial choices, and so must be both technically and procedurally robust. A strategy should:

- Be consistent with and respond to national and regional guidance and objectives;
- Reflect and contribute to the vision for the area, for example, as expressed in the Community Strategy and the guidance on its preparation (1);
- Be well rooted in relevant local policies and contribute to wider community objectives, both transport and non-transport related;
- Respond to local circumstances and public concerns with clear objectives;
- Make the right connections with related strategies, for example, for economic regeneration, crime prevention, streetscape enhancement;
- Be internally consistent and technically robust;
- Show how adequate levels of parking enforcement will be provided;
- Be based upon sound consultation and wide stakeholder involvement;
- Have strong political and local support;
- Have a realistic implementation timetable;
- Include a business plan that enables parking costs to be covered by revenues; and
- Include a framework to monitor performance and achievement.

Local authorities should ensure that the programme of preparation should meet the above criteria.

There will be a need for consultation and involvement of

interested parties. This is a topic of major importance and is dealt with separately in Chapter 8.

Political support

It is important that, as the Strategy is developed, the key elements receive strong political and local support. This may require the involvement of a local forum or steering group as well as the elected members of the council(s). Gaining support should be easier if proposals focus on locally acknowledged problems, but will be needed also for policies with a wider purpose, in particular those aimed at reducing the demand for car travel.

Support for the principles of a strategy will not necessarily translate into support for individual schemes or policies. Nevertheless, support for the strategy is vital to facilitate the approval of contentious local details (such as charging on-street in areas where parking is currently free, or pricing long-stay parkers out of central off-street car parks).

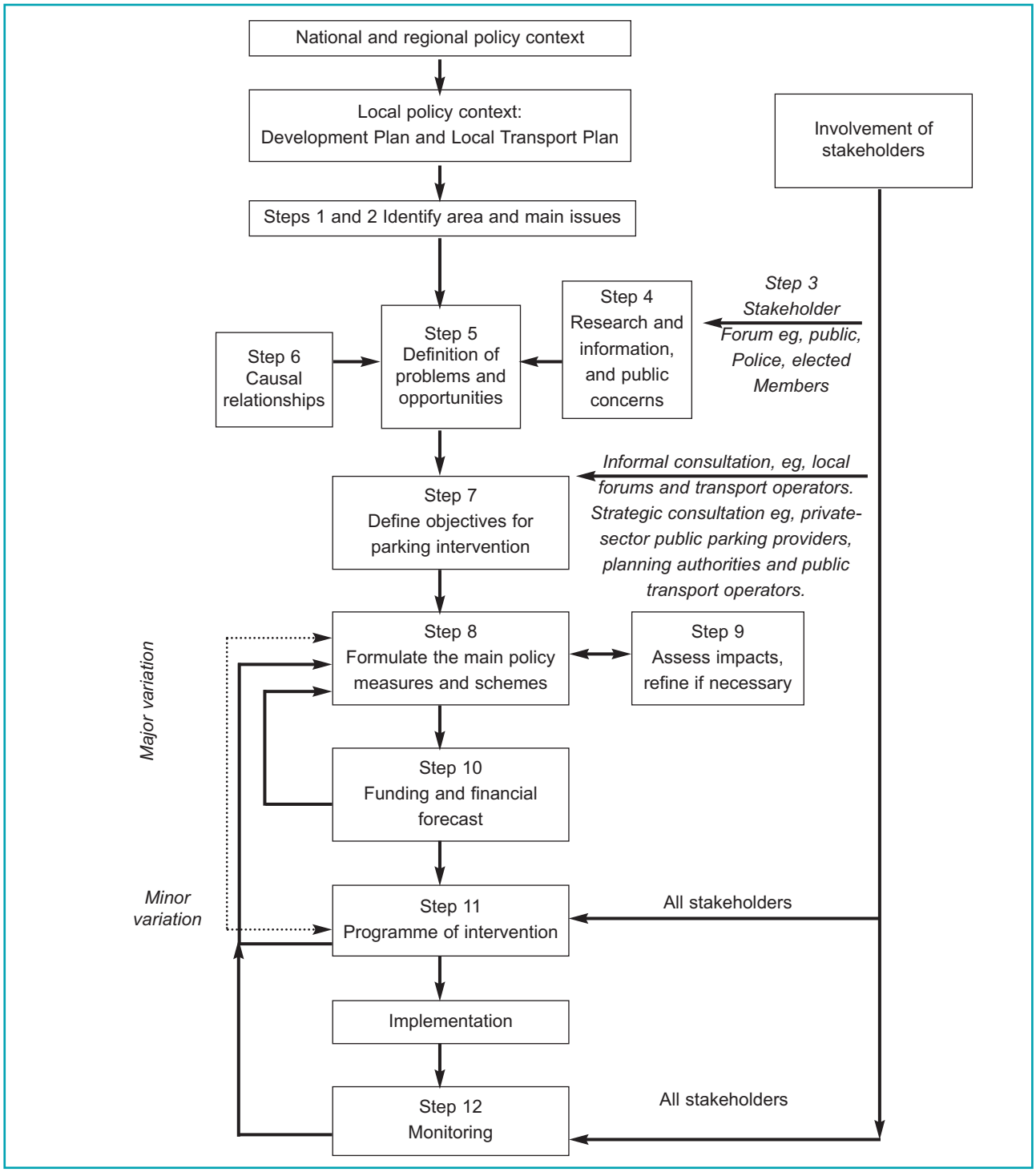


Figure 4.1 Developing a Parking Strategy.

Early stages in the production of a Parking Strategy that will require consideration by elected Members are:

- Agreeing and confirming that parking deserves attention and resources;
- Defining links between the Parking Strategy, the Local Transport Plan, and the Development Plan; and
- Seeking agreement to the principles of the overall Parking Strategy, its aims, objectives and strategic policy tools (eg, the decision whether to decriminalise parking enforcement or to introduce parking tariffs);

Other key stages for member involvement and formal decisions within the process are:

- Seeking approval for investigating the feasibility of an individual scheme or CPZ;
- Undertaking public consultation to define a scheme boundary and operational elements (level of charges, hours of control, etc);
- Seeking approval to advertise Traffic Regulation Orders; and
- Deciding on any unresolved objections that arise.

Timescale

The time taken to prepare and adopt a Parking Strategy will depend on the "maturity" of parking control and management in the area concerned. Where parking control as a policy instrument is long established (as in central London authorities), the Strategy will consist largely of bringing together different aspects of current practice, together with any adjustments required. In an authority with relatively little experience of parking control, or where major changes are proposed (such as converting to Decriminalised Parking Enforcement), then time may be needed for several rounds of refinement and decision making, and the process may take up to two or three years.

Ideally, a Parking Strategy will be prepared or updated as part of the LTP process, thus keeping consultation and administrative tasks to a minimum. Neither should be delayed, however, simply to bring this about.

Responsibility for preparation

A parking strategy will be the responsibility of the transport authority, ie the authority charged with preparing the LTP. It is within the LTP that a Parking Strategy should sit, forming an integral part of the overall strategy, contributing to its objectives and integrating with other policy areas.

However, the management of parking does not fall neatly under the control of one authority or organisation but involves many parties, both public and private. A Parking Strategy must, therefore, be prepared with the involvement of other authorities and organisations.

Unitary authorities have responsibility for both on and off-street public parking, though the strategy preparation process may involve more than one department. In areas with two-tier authorities, joint working will be necessary in order to co-ordinate on-street and off-street parking policies, planning and operations.

In both single and two-tier areas, partnerships may also be necessary with other bodies, such as the police and other organisations involved in parking supply.

Likewise, responsibility for enforcement may be split between a number of bodies, notably the police and traffic authorities. The owners or their contractors undertake the enforcement of private car parks, and as such remains a sector of parking enforcement that is largely unregulated. A Parking Strategy will need to take account of what can be

monitored and enforced and its preparation must involve these different enforcement agencies.

Involvement of planning authorities

Whether or not the transport and land use planning functions reside within the same authority, the officers and elected members in respect of both functions should work together. The involvement of the planning authority is necessary to:

- Provide or coordinate the community strategy and vision;
- Ensure compatibility between on-street and off-street policies;
- Formulate appropriate street and public realm design guidance that takes full account of on-street parking and loading;
- Establish maximum parking standards and a suitable mechanism for determining levels of provision in individual developments;
- Determine the policy for parking provision in relation to the conversion of residential properties to provide more (or less) dwellings; and
- Determine policy for the licensing of cross-overs and the conversion of front gardens to hard stands for vehicles.

Joint Parking Strategies

A parking strategy might encompass the administrative areas of several local planning authorities. This will be appropriate particularly where:

- Local authority boundaries cut across work and retail catchment areas; and
- Where there is a danger of damaging competition between neighbouring authorities.

Consultation and joint working will be required to produce a common approach to the parking aspects of planning and transport policy, particularly the determination of maximum parking standards and parking tariffs. For example, the unitary authorities of Thurrock and Southend-on-Sea cooperate with Essex County Council for the purpose of determining maximum parking standards. Differences of view between neighbouring authorities as to appropriate maximum parking standards are a common difficulty, and joint working is the minimum needed to resolve such differences.

The need for joint working or joint strategies between local authorities may also arise from the work of the Regional Planning Bodies in preparing and implementing Regional Transport Strategies. The regional bodies and Government Offices may need to be pro-active in ensuring that all authorities adhere to regional maximum parking standards.

The effect that parking charges can have on competition between towns and cities both within and beyond the strategy area will need consideration and proposals may require wider consultation. This may not be possible if the competing areas are not within one local authority's jurisdiction, yet can be a real hindrance to one authority taking "bold decisions". Increasingly, parking charges are being seen and adopted as a demand management tool, but in situations where towns and cites are in competition with one another, for trade or for economic development, this can be effective only if a suitable framework is provided at regional level. This is recognised in guidance on Regional Transport Strategies (2).

Consistency and co-ordination between parking providers

Where there is public off-street parking controlled by private operators, consultation will be necessary in order that consistency may be achieved between the transport authority's

on-street, the public off-street and private car park operators' regimes. This might require adjustments to tariffs to ensure compatibility amongst the various providers and to ensure that, in the case of a railway or hospital operator for instance, displaced parking does not compromise private provision. Local authorities have limited control over tariffs and conditions in private car parks but these are discussed in Chapter 6.

A Parking Strategy may need to address cross-boundary coordination. Consultation to achieve this will be of particular importance between metropolitan authorities and within conurbations, for example, where the limits of a Controlled Parking Zone might straddle, be close to, or be concurrent with boundary roads. Without such coordination, this can lead to different controls operating on either side of a boundary road with different systems for Pay and Display, voucher parking, permits, etc. The aim should be to integrate parking controls and systems and their implementation along boundary roads and to ensure that there is compatibility in parking policy between neighbouring areas.

The scope of a local Parking Strategy

While the detailed content of a local Parking Strategy will vary from place to place, the following provides an indication of the coverage required, and could serve as the basic contents list:

1. Vision, objectives and targets
2. Policies for all types of parking
3. Key schemes
4. Parking business plan
5. Protocols for monitoring and other procedures.

The Strategy may fulfil many purposes and address many detailed issues, but the following should feature prominently:

- Measures to manage or reduce the demand for car use, and specification of the particular demand to be managed in this way;
- A resolution of conflicts and priorities between different user and interest groups in relation to the design and regulation of streets and public spaces;
- An appropriate balance between the provision of parking spaces on and off the street, and between long stay and short stay use;
- A parking control and enforcement regime that is consistent with, and contributes to, wider objectives of urban transport, planning and economic development;
- The framework for an efficient and financially viable parking business;
- The long term provision and management of private car parks in residential and non-residential developments;
- The parking for lorries and loading/unloading facilities for them;
- The parking of coaches, cycles and motorcycles; and
- Inclusion or reference to urban design and street design frameworks that promote the integration of parking and other public realm activities.

All aspects of parking provision and enforcement should be brought together in order that a co-ordinated approach to provision and management may be taken. Parking is a means to an end and a function of social and economic demands. Parking should not, therefore, be considered in isolation but in association with the factors that generate the demand to park. To achieve this requires the integration of the parking strategy with land-use planning, economic policies and broader sustainability objectives.

The Steps to producing a Parking Strategy

Figure 4.1 sets out diagrammatically the twelve and relatively discrete steps involved. Many practitioners will recognise these steps and their use may be well established, but they are set out here to help those who are less familiar with them. Chapter 5 will deal with the formulation of specific schemes and policies, and the various issues and topics that need to be taken into account.

Step 1: Identify the strategy area

The first step in the development of a parking strategy is to define the geographical area under consideration. In the UK, parking strategies can be developed by several tiers of local government, ranging in area from large metropolitan authorities and city unitary authorities to small district councils. The size and characteristics of the area will have a significant effect upon the strategy and the breadth of its objectives.

A typical shire county parking strategy, for example, might define countywide parking policies with subsidiary parking plans for a number of town or district council areas. In contrast, a parking strategy for a unitary city council might address the whole urban area.

It should be noted that within two-tier local authority areas there is a range of working arrangements that reflect the extent to which powers are delegated under agency agreements. These can vary even within one County.

Whatever the arrangement, there are clearly two areas to consider within a parking strategy; the first being the Transport Authority's administrative area and the second being the locally focused operational areas for which parking plans might be required. A strategy may cover both policy and operational elements where such areas are not coincident.

Step 2: Determine the main issues

Both top-down and bottom-up approaches are required.

The ***top-down*** approach consists of responding to over-arching national, regional and local objectives and policy guidance.

The objectives of the transport planning system will have been brought together and contained within the LTP. The parking strategy may provide one of the main mechanisms through which LTP targets, such as those for traffic reduction, modal shift and accessibility, are to be achieved. Where a road-user hierarchy has been defined within the LTP, this will help to define (in the strategy) how street and kerb-side space should be allocated between competing user groups.

Transport is key to spatial development and parking management is one of the primary tools to influence sustainable patterns of development and travel. As a consequence, land use planning policies will also play a role in determining the issues to be addressed.

The strategy not only needs to address the parking requirements of the present, but also must be sufficiently robust to address future changes in parking demand. Determining future levels of demand needs to take account of policy objectives and targets. This is based on a recognition that demand for parking, as for any other good or service, is subject to the influence of price, regulation and other factors. Nevertheless, such influence will be based on the realities of demand provided by underlying social and economic trends, the attraction of any new development demand, and the effects of associated transport strategies.

The inter-relationship between future development and the

associated demand for and supply of parking is a major issue to be dealt with in the Local Development Framework. A Parking Strategy, therefore, must follow from this and include the maximum levels of parking that have been established and the mechanisms that will be used to negotiate levels of parking provision lower than the maxima. It will also need to show how parking policies and proposals relate to the accessibility of sites identified for development and the promotion of Travel Plans. Applicants for new development will need to refer to and be guided in the preparation of their Transport Assessments. For example, where parking demand is likely to result in an increase in on-street parking, guidance will be needed on the prospects or requirements for introducing on-street controls.

The ***bottom-up*** approach consists of identifying local concerns, problems and opportunities. These can be identified through a review of the relevant issues and the history of public representations or complaints. Sources of information include local elected Members, local staff such as highway superintendents, newspaper reports and previous correspondence. Consultation with the police, public transport operators, emergency services, taxi operators and freight distribution operators will also help to identify problem areas that the parking strategy should address. This can provide a valuable starting point when setting up a transport forum or working group.

Step 3: Establish working groups and forum

The production of a Parking Strategy may be overseen by a steering group of elected Members. This should be constituted to include members with responsibility for land use planning, transport planning and the parking service.

The technical work will need to be undertaken by local authority officers (or their appointed consultants), who may be from different departments, or sometimes from different local authorities. An officer working group will need to be established to coordinate this work, and to report to the appropriate elected members.

Guiding principles will need to be agreed between the members and officers before any detailed technical work, such as parking surveys and scheme design, is undertaken.

In deciding on the member and officer working arrangements, it will be necessary to consider how stakeholders can be involved, and how the working arrangements will tie in with the Local Transport Plan and Development Plan processes.

It may be helpful to identify all relevant issues in relation to different stakeholder groups, or “stakeholder mapping”. In order to tackle this it may be helpful to establish a “parking forum”, or a working group within any local forums set up to consider wider transport issues.

Step 4: Research and data gathering

The process of preparing a Parking Strategy will make demands for up-to-date information. The formulation of policies to reconcile different interests and to balance demand with supply will require data on the capacity and use of parking. In many cases detailed information is not available, but the Strategy provides both an opportunity and a requirement for the establishment of a baseline.

The research and information gathering stage is necessary to:

- Identify existing problems and their causes;
- Assess the effect of potential solutions; and
- Provide a baseline against which predictions and progress towards objectives

and targets can be measured.

More specific data on parking activity is likely to be needed for scheme development and monitoring. Decisions on data collection will need to balance the advantage of better quality decision making with the survey costs involved. The summaries shown describe some of the more useful and commonly used surveys.

Parking surveys (3)

Surveys of parking activity will be useful when designing or modifying parking control schemes. Reviews of parking charges are likely to require surveys to be undertaken of both on and off-street car parking. The more difficult that the problems or issues are, the more contentious the decisions will be and, as a general rule, more data will be required to inform the decision making process.

The type of surveys required will be dependent upon the scale of the problem. For a non-contentious residents' parking scheme, the minimum data required would be an estimation of the residential parking demand, for which a simple beat survey would suffice. For this an enumerator would cover a planned route at regular intervals (say every half-hour) and record parked vehicles, thus providing occupancy and duration records. Other data recorded could include violations such as parking on yellow lines and an absence of a permit or ticket. A number of beats would allow for the full cover of the area being surveyed. Such a survey would need to address early morning hours to gauge overnight demand. If the problem to be addressed relates to short-stay provision or the desire to encourage a higher turnover of spaces, more frequent surveys would be required. The frequency of surveys will determine the length of each beat and therefore the number of beats and enumerators required.

However, whilst the collection of data has become easier through the use of hand-held data capture devices, the more data that is collected the more complex the analysis will become. It is, therefore, necessary to be clear from the outset what information is required from the data in order to avoid the collection of superfluous and resource consuming data.

• Identify roads and establish beats	2 weeks
• Carry out surveys	2 weeks
• Prepare raw data for analysis (this task could be avoided if hand-held data capture devices download straight into the data analysis software)	4-6 weeks
• Run data through specialist software	1 day
• Interpret information	1-2 weeks

In the case of a CPZ for a small to mid-sized commuter town, the organisation of beat surveys might follow the timescale above.

Parking use and accumulation surveys provide a snapshot of the level of demand for parking within an area. By undertaking these surveys during both night (or very early morning) and day, the demands of residents, businesses, traders and visitors can be approximated. Data can also inform the potential for reducing levels of car ownership amongst residents, for example through the development of car clubs (4). For example, one study found that at least 40% of residents' cars were parked at home at any one time. By undertaking repeat surveys trends can be identified, for example for periods of the day or seasonal trends. When identifying the appropriate periods for undertaking surveys, thought must be given to social changes that affect demand, such as longer trading hours or a growing evening economy. For example, the peak demand for supermarkets has tended to shift away from Friday evening with the advent of Sunday trading.

Current patterns of usage may be a poor guide to the demand that will arise following the introduction of controls or charges in an area for the first time. This is because some demand will be deterred by the new regime, whilst the better availability of space may attract new demand.

Parking duration surveys provide data to assess the length of time for which parking events occur. This will be useful when determining the appropriate mix of short, medium and long stay spaces in a control scheme or car park, or in setting charge rates. There are a number of techniques available such as the parking-beat, continuous observation, and still, video and aerial photography. The most basic of these, the parking beat method, requires a set "beat" walked at regular intervals and the registration number of all parked vehicles recorded. From this data the duration of each parking event can be determined to an acceptable level of accuracy. This traditional survey method has been developed through the use of hand-held data collection units, for example the PARC (Parking Analysis and Recording by Computer) method developed by the Transport Research Laboratory. Comparison of the PARC technique with the parking beat method has shown that PARC is considerably more sensitive to short term parking events, which are of particular importance when considering local trade.

Parking habits surveys provide an indication of the way in which vehicles are parked, for example obstructing access ways or junctions, or in contravention of parking or loading restrictions. This type of survey will give a snapshot of problems that can be tackled through a control scheme, and of compliance with an existing control scheme. It can be combined with a parking duration survey to establish data on the type and prevalence of non-compliance.

Other surveys

It may be necessary to undertake further surveys to obtain more specific data relating to trip purpose and parking habits. This information can be used for deciding on the allocation of parking spaces within a controlled zone, for example by time or by user type.

Interview surveys of customers, employees and commuters can provide useful information on journey purpose, frequency, origin, mode and parking habits. Such surveys are necessary to establish mode split and other travel data that is required for setting up and monitoring Travel Plans.

For further advice on parking surveys and methodology, see references at the end of the chapter (3).

Baseline data sources

It is important that any baseline study lends itself to measuring the performance of a strategy's objectives and data will, therefore, need to be chosen from the outset to reflect this. In addition, baseline data will inform the development of the local parking strategy by identifying existing strengths and weaknesses. A number of new data sources will need to be established as well as existing sources.

An audit of the existing on-street and public off-street capacity should be considered, together with data relating to demand. In many cases the demand for off-street spaces will be available from car park management computer databases but, if not, usage surveys will need to be undertaken to ascertain the level of spare off-street capacity and profiles of demand. This may prove difficult because of commercial sensitivity. On-street demand will usually require usage surveys to be undertaken.

A key objective of many LTPs and Parking Strategies will be to achieve modal shift, in which case the recording of mode split data will be at the forefront of monitoring programmes. Parking policy is one of the major mechanisms to influence travel behaviour and mode choice.

Price elasticity of demand for parking in many towns tends to be low, but depends very much on the alternatives available, and ratio of supply to demand. Where alternative parking opportunities are limited or prices in adjacent towns or areas are at about the same level then demand will be insensitive to the introduction of modest charges or to price increases, with any impact short-term. In areas such as central London, demand is inelastic even at very high prices. As a general rule it is sensible to have prime on-street spaces in shopping/business areas priced to encourage short stays and thereby high turnover, with lower hourly rates and longer average stays in less convenient locations and in off-street car parks.

Financial data and audits will be necessary for the proper handling of a parking business plan, and also provide data relevant to the analysis of price elasticities described above. Liaison with the finance or treasury departments will be necessary. More details appear in Chapter 10.

Background accident data relating to incidents in heavily parked roads could provide a valuable baseline for road safety against which future improvements in on-street parking, whether by changes in regulations or enforcement, could be measured.

Crime figures relating to car theft, from both on-street and off-street locations and to personal security in car parks could provide further baseline indicators. Qualitative improvements in off-street car parks together with a shift of long-stay commuter parking from on-street to off-street and secure facilities provided by Park-and-Ride can all contribute to a reduction in recorded crime figures, as can a greater enforcement presence.

Step 5: Identify problems and opportunities

A Parking Strategy should not only address existing and predicted problems, but should also identify opportunities for improvement. These will need to be identified and confirmed through the data gathering and consultation processes. This is necessary in order to determine whether intervention would be consistent with policy and have the desired impact.

As far as possible, problems should be related to people's experience and perception, as this will assist in public consultation related to parking proposals.

It is important to note that a Parking Strategy may not necessarily be primarily aimed at solving parking problems. For example, an ample supply of parking in a town centre may generate no "parking problem" as such, but may generate other problems that the Local Transport Plan is expected to ameliorate, such as excessive traffic within the town centre, weak public transport demand, and shortage of land for development.

Parking problems (as opposed to parking impacts) are mostly about the difficulty drivers face in finding somewhere to park convenient for their destination. This arises either because of an absence of parking opportunities or an excess of demand over supply. A solution can usually be found through the imposition of a

parking charge to reduce demand, but this may then in turn lead to other perceived problems (eg, lack of alternative means of access, excessively high parking costs).

Of greater significance in most places is the problems caused by parking on other aspects of life. Such problems arise particularly, but by no means exclusively, from illegal parking. In *Parking Perspectives* (5), Valleley identifies the following negative impacts of parking:

- Accidents;
- Congestion;
- Access problems, including severance and obstruction; and
- Environmental intrusion, including visual amenity.

These problems can arise not only from illegal parking but also from obstructive or inconsiderate parking where there are no parking restrictions. Even within a parking control area problems can arise if the scheme is poorly designed or allows for excessive amounts of parking.

It is unclear to what extent illegally parked vehicles cause accidents, but illegally or dangerously parked vehicles create hazards for pedestrians and other road users. There is little or known research on this, but Brown (6) estimated an accident cost of nearly £100,000 per annum due to illegally parked vehicles in Brighton in 1985.

The act of parking can contribute to congestion in a number of ways. Parked vehicles can reduce capacity at junctions and cause obstructions, which slow or interrupt traffic flow. The propensity to park illegally effectively increases the parking stock which can lead to more traffic being attracted to the area (7) and abuse of user defined bays generates the need for legitimate users to search for alternative available spaces. Abuse of disabled persons bays, for example, has led to some supermarkets introducing monitoring procedures using CCTV cameras.

Illegal and obstructive parking causes problems for businesses and for residents in accessing their properties (8). Parking on footways and cycleways and at junctions can be a major problem, reducing the comfort and convenience for people on foot or bicycle, and producing a major hazard for people with a physical impairment. Obstruction of dropped kerbs, bus stops and crossing places causes particular problems. Illegal or inappropriate parking can also undermine the effectiveness of traffic management schemes, for example the obstruction of bus and cycle lanes.

The environmental or "social" costs (7) of illegal parking (and of inappropriate parking, for example by commuters in residential areas) are represented by the additional noise, pollution and intimidation resulting from the higher traffic levels and congestion caused by illegally parked vehicles (8). Illegally and inappropriately parked vehicles are also seen to detract from the visual amenity of an area (7).

Indiscriminate parking plays a role in determining the quality of existing development. Ill-conceived policies can lead to car-dominated environments in the street, creating and/or perpetuating conflict between vehicles and other users of the street (including safety), generating unnecessary clutter (eg, excess signage) and poor landscaping. It may also have negative consequences on land use, the ability of pedestrians to move into and through the area and visual amenity.

Problems are created when demand for parking outstrips supply. This may lead to illegal parking, but may also lead to parking being available on a first come, first served basis, rather than any sensible set of priorities. This can create problems for residents, businesses and disabled people.

Lack of parking availability also creates unnecessary travel distance due to drivers looking for a free space, so-called "searching traffic".

The extent to which drivers will "search" for spaces can be surprising, but it is worth demonstrating when promoting a scheme. For example, video evidence obtained from following vehicles in the centre of Bognor Regis prior to the introduction of a CPZ revealed some extreme examples of drivers circulating repeatedly to find free spaces in a favoured location.

Step 6: Identify and agree the causes of problems

Once the problems have been identified the next step in developing a strategy is to identify the causes of the problems, in order that they may be addressed.

It should be borne in mind that frequently "the measures which can be introduced to alleviate the problem can do nothing to attack its cause and merely attack the symptoms" (4). It is, therefore, important that a strategic approach to parking takes account of the wider causal relationships that generate parking demand.

Any imbalance between capacity and demand will need to be examined and in particular, if demand exceeds supply, whether the provision of increased on-street or off-street capacity would be possible or desirable. An increase in capacity may well conflict with the objectives of the strategy, but it could be better tailored to match the profile of demand. For example, demand for short stay parking could be satisfied at locations closest to the retail core of a town centre and long stay parking at peripheral locations. Imbalance and conflict between competing users is most likely to occur in urban centres, particularly close to retail and leisure areas, surrounding railway stations or hospitals and in residential areas with limited off-street parking.

In addition to any imbalance between capacity and demand, the qualitative relationships between them also need to be considered. For example, whilst there may be sufficient capacity on paper, if off-street facilities are poorly located or of poor quality they may be under utilised, resulting in increased pressure elsewhere. Location, design, maintenance, security and perceived safety all affect customer choice. The lack of good quality and informative directional signing can lead to excessive demand occurring at certain locations while spare capacity exists at others.

The lack of an effective enforcement regime can be the main cause of high levels of on-street illegal parking acts. Where powers for the Decriminalisation of Parking Enforcement (DPE) have not been taken up, parking enforcement will remain the responsibility of the Police, and will largely be undertaken by Traffic Wardens. The commitment of resources to the enforcement of parking restrictions is considered by some police forces to be a low priority and a drain on scarce resources. In some areas forces have withdrawn Traffic Wardens completely, with the result of a virtual parking free-for-all. A move to DPE may form the cornerstone of the enforcement element of a parking strategy. This is discussed in greater detail in Chapter 7.

Step 7: Set objectives and targets

This is crucial as the means of determining what parking interventions are appropriate and why. It is also necessary in order to monitor the impacts of any interventions. The process of setting objectives and targets is dealt with in detail in Chapter 5.

Step 8: Devise potential schemes and policies

This is covered in Chapter 6.

A concern of retailers and traders voiced frequently in response to consultation on parking schemes is that any restriction of parking will harm their trade and the viability of the city/town centre. This perception is not supported by evidence. Indeed, in many if not all cases, an objective of parking schemes will be to support or to improve the economic viability of such an area. It would, however, be advisable to obtain baseline indicators of economic performance, such as city/town centre footfall data or an economic performance index, if available. Furthermore, city or town centre customer surveys can be undertaken to establish the relationship between the amount spent per person per trip, and mode. The contribution of car access to the viability of the centre might thereby be evaluated. The frequency of visits tends to be higher for users of public transport, walking and cycling than for car users, and consequently the "spend per person" may provide a more realistic picture of the contribution of different categories of user. A study in Kensington High Street found that the total spend in the shops was dominated by public transport users (49%) and walkers (35%). Car users (drivers and passengers) accounted for only 10% (9). This finding is reinforced in other similar studies, for example, in Birmingham (10) and Borehamwood (11).

Such surveys may need to be repeated at intervals to pick up the impact of wider changes in the national or local economy that can mask local effects. In terms of town centre vitality, shop rental values and occupancy rates may be more reliable proxy measures. Vitality can also be measured by the occupation of public space by pedestrians and people just out enjoying themselves. This approach has been well developed and documented in the case of Copenhagen (12).

Step 9: Assess the impact of potential solutions

This should test the extent to which the proposed interventions will achieve the objectives and targets set for the strategy. To do this it may be helpful to tabulate the interventions and objectives. Interventions can then be assessed in turn as to whether they make a positive, negative or neutral contribution to the objectives.

Although this will be a qualitative, even subjective, exercise it will also help to identify any potential knock-on effects that proposed interventions might have. Some examples might be:

- Reductions in commuter parking may result in peak hour overcrowding on public transport;
- A new parking control scheme may displace parking to neighbouring areas, where a problem may not currently exist; and
- The introduction of parking controls without full provision for residents, or with high permit prices, may lead to householders converting their front gardens to hard standing for their vehicles with a demand for drop kerbs and licensed cross-overs.

The appraisal process should also include consideration of any impact that proposed interventions may have on other (non-parking) areas of policy, such as freight deliveries, public transport, cycling, pedestrians, crime and safety, motorcycles, taxis, air quality, economic development, tourism and sustainable development. The aim should be to ensure that parking interventions serve all objectives in a positive way, or at least do not work against any objectives.

Step 10: Prepare the financial and business plan

Any Parking Strategy should show how revenue will be earned, and how it will be spent. The justification for this will need to be in terms both of policy and the operation of the "parking business" within the local authority. The various matters to be taken into account are discussed in more detail in Chapter 10.

Step 11: A programme of intervention

The Strategy must be capable of being implemented. It will, therefore, be necessary to set out policies and schemes in sufficient detail for those responsible to take them forward. This may involve further refinement of particular schemes, including if necessary further consultation. A timetable for the implementation of the various measures should be included.

The timescale for the implementation of a parking strategy will depend upon the complexity of its elements. Policy measures such as the adoption of tighter maximum levels of parking in new developments can (once formulated) be implemented within a short time frame, requiring no more than a council resolution to adopt it as supplementary planning guidance. The impact, however, will be incremental over time as more and more planning decisions are made according to the new policy. The same will apply to street or car park design guidelines. Other interventions may take a considerable time to develop, and their impact will not be felt until the day of their implementation on the ground.

In terms of on-street parking control schemes, a move to the decriminalisation of parking enforcement (2–3 years) might take longer to implement than the introduction of a Controlled Parking Zone (1–2 years) which in turn would take longer to implement than the introduction of charges (3–6 months). The time taken to advertise TROs and resolve objections or make modifications should not be under-estimated.

It may be seen, therefore, that "decisions" and "implementation"

can have different meanings depending on the measures to which they refer.

Step 12: Specify a monitoring regime

Two kinds of monitoring are required, and the mechanism for these should be clearly set out.

1. Outputs

Progress towards the implementation of the policies and schemes and other interventions included in the Strategy will need to be monitored. The monitoring will be undertaken by the local authority against the timetable or programme of implementation.

This part of the process does not involve any assessment of the effectiveness or impacts of the various interventions, but does involve checking whether they have been implemented on time. This will be of particular importance in terms of Best Value and other performance monitoring, but also where implementation is tied into other transport or planning programmes. For example, redevelopment of a town centre car park might be dependent on the implementation of a park-and-ride scheme.

2. Outcomes

The Strategy should set out a programme to measure the effectiveness of its proposed interventions in relation to its objectives and targets. This is by far the most onerous aspect of monitoring, and requires a carefully thought out research and survey programme. It must be borne in mind that the monitoring scheme may require "non parking" impacts to be assessed and disentangled from the principal parking effects. For example, a conversion of on-street parking space to pedestrian and amenity use may require the monitoring of changes in local trade and footfall, as well as the impact on parking and loading activity.

This programme will include the establishment of baseline information prior to implementation, and after-surveys that will provide comparable information post-implementation. The data gathering stage of the Strategy preparation may already have provided important baseline information.

The monitoring system should be based on a clear understanding of the "causal chains". For example, mode split for work trips to the town centre may be monitored to assess the effectiveness of a parking control scheme that discourages long-stay parking.

	Preparation or design	Implementation	Impact on behaviour
Policy, rules and guidance incrementally	Months or years	Immediate	Immediate, but impact increasing over time
Physical or regulatory schemes	Months or years	Weeks or months	1. Negative impact during construction 2. Intended impact starting from Day 1 after scheme completion
DPE	Years	Immediate	Immediate and increasing, with possible wider impacts.

The next course of action

This chapter has discussed the preparation of a Parking Strategy, and provided an indicative method of approach, broken down into a dozen steps. A checklist appears in Figure 4.2.

Once these have been completed, individual interventions can be formulated. A Strategy may contain a number of different schemes, policies and protocols and these will be explored in Chapter 6. Guidance on the design of specific measures and on implementation is also given in the chapters that follow.

Figure 4.2 Checklist for a model parking strategy.

If the 12 steps are followed, adjusted as necessary to reflect local circumstances, then the Strategy that results should:

- Facilitate the achievement of the vision for the area or place.
- Reflect existing problems and identify their causes.
- Reflect public concerns for the need for action.
- Relate to local issues and integrate with over arching national, regional and local transport and objectives and policies.
- Relate well to relevant objectives such as in the local development plan or community plan.
- Be supported by accurate data.
- Be based upon sound consultation with wide stakeholder involvement.
- Have strong political and local support.
- Integrate on and off-street parking availability and cost.
- Be clear about how adequate levels of enforcement will be provided.
- Consider neighbouring areas and other strategy areas.
- Have a self-financing business plan which enables parking costs to be covered by revenues.
- Have built-in performance measures and be easy to monitor.
- Have an implementation timetable which allows for several iterations and for seasonal conditions and activities; (details about implementation are covered in Section 3 in these Guidelines).
- Be supported by a communication strategy that delivers accessible information at the appropriate time and gathers public support.

References

(1) ODPM, 2000, Preparing Community Strategies – Government Guidance to Local Authorities.

(2) Guidance on Local Transport Plans, 2nd Edition and PPG (PPS) 11 Regional Planning.

(3) Chick, C, 1996, On-Street Parking A Guide to Practice, Landor Publishing, London, and Dean, G, 1989, Parking surveys – a comparison of data collection techniques, RRR 22, Transport Research Laboratory, Crowthorne, Berkshire.

(4) Pharaoh, T, 1986, The Motor Car: Idol or Idle? A survey of redundancy in domestic car fleets in Traffic Engineering & Control, February 1986.

(5) Valleley M. 1997 Parking Perspectives – A sourcebook for the development of parking policy. Landor Publishing.

(6) Brown M. 1991 Car Parking - The economics of policy enforcement". Cranfield 1991.

(7) Cullinane K and Polack J. 1992 Illegal Parking and Enforcement of Parking Regulations: Causes Effects and Interactions. Transport Reviews Vol 12 No.1 pp49-75.

(8) May A D. 1985 Parking Enforcement: Are we making the best use of resources? PTRC Proceedings of Seminar M, July.

(9) Colin Buchanan & Partners 2002 Kensington High Street Study.

(10) SDG study in Birmingham of economic activity by mode.

(11) Pharaoh T 1992 Unpublished study.

(12) Gehl, J and Gemzøe, L, 1996, Public Spaces Public Life, Danish Architectural Press, Copenhagen.

Section 2
Objectives and Measures

Chapter 5
Defining Parking Objectives

Introduction

The context for this chapter is summarised in Figure 5.1.

The objectives for managing parking in any area need to be carefully defined – whether they are concerned with the design of a parking control scheme, the setting of charges, the negotiation of parking in new developments, or any other action. Sometimes objectives conflict with one another and there is a need to strike an appropriate balance.

The steps involved in the preparation of parking objectives are likely to be:

1. To identify all national and regional policies as they apply to the area under consideration;
2. To identify objectives from local framework documents, in particular the Community Plan, Development Plan, and Local Transport Plan (LTP). Specific objectives including targets will be particularly relevant;
3. To prepare a list of preferred objectives for inclusion in a Parking Strategy. Stakeholder involvement may be particularly helpful at this stage;
4. To justify each objective by explaining how it contributes to the wider objectives identified in 1 and 2; and
5. To identify any conflicts of interest that arise, and resolve them.

Once the parking objectives have been agreed and conflicts resolved, they should form the basis for the specific policies and schemes (see Chapter 6).

Key Issues

The challenge for policy-makers is to understand the different ways in which parking can, and should, be used to contribute to wider policy objectives. Parking policy – and the elements within it – is just one part of transport policy decision-making. In turn transport policies need to be consistent with land use policies and with overall economic, environmental and social policy goals. They are all inter-related.

Objectives should, therefore, be set in a way that is justified by the intended benefits, and should take into account:

- **The benefits of parking controls:** These should be identified and followed through into schemes and policies. Limiting car use has no intrinsic merit, and can only be justified by reference to social and environmental gains, such as more street space for pedestrians and traders, reduced pollution, and less congestion;
- **Complementary polices:** These should support the "carrot and stick" approach to

achieving sustainable transport. Parking regulation may be seen as the 'stick' and will only succeed alongside other activities such as the opportunity to introduce environmental improvements and high quality regeneration schemes;

- **The context:** The types of control need to reflect the locality and how they fit into a wider context. It is unrealistic to expect parking to be limited in one area in isolation unless complementary policies are applied in other areas; and
- **Improvements to alternatives to the car:** A move away from access by car can only be successful if attractive alternatives are available. This may involve investment in or subsidy of other modes, and so a Parking Strategy must be consistent with such measures as set out in the Local Transport Plan.

Parking as an influence on Trip Generation: Patterns and Modal Choice

Parking is a key demand management tool. The availability of parking has a major influence on the transport choices people make. In particular, restricting the amount of parking at new development provides a form of restraint that can help limit traffic levels and/or mitigate traffic growth as well as strongly influence modal split. Hence, the amount and type of parking at a development is a key factor in its generation of trips. Work by the TRL (1) that investigated the impacts of a range of transport policies in five cities pointed to the importance of parking policy in influencing traffic levels. Similarly, LPAC (2) and SERPLAN (3) showed the relationship between parking policy and modal split.

LPAC's *Parking Advice* (4) argued that current modal splits in an area could be used as an important input into a parking strategy. In particular, it suggested that parking standards should not be more generous than those required to accommodate the average modal split for similar journeys.

This work highlights the critical importance of location in achieving a modal split favourable to public transport, walking and cycling. The position of Central London in this respect has long been acknowledged. LPAC's work also demonstrated that town centre locations could increase public transport's proportion of trips around two to three times and significantly increase access by non-motorised modes. Even developments that have become associated with access by car can retain a significant proportion of access by other modes given the right location. Planning and transport policies need to build on this. The starting point is locations that provide for multi-modal access supported by restraint-based parking and more rigorous traffic management.

The amount of residential parking is also a critical factor in determining car ownership levels. This is particularly so in many inner city areas where

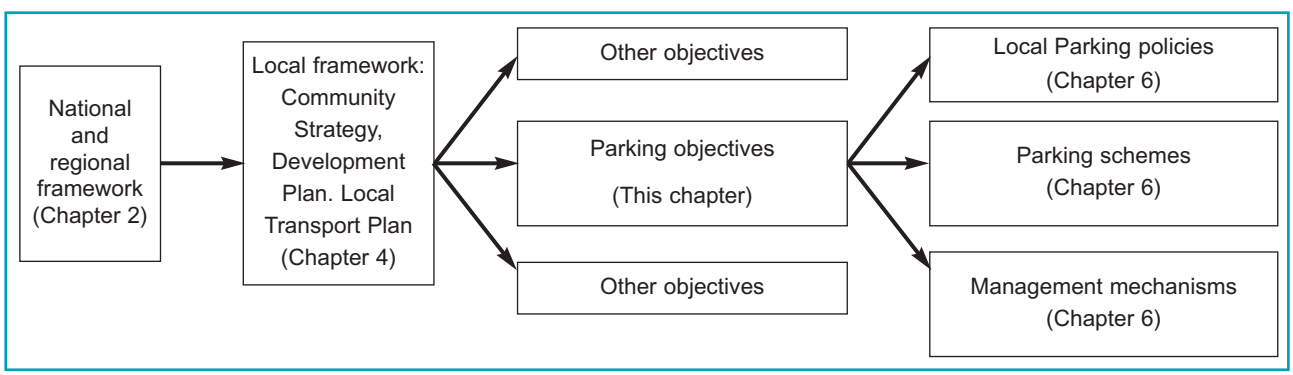


Figure 5.1: Parking Objectives within the wider context.

levels of car ownership are below those expected in relation to household income because there are alternative modes available and there are difficulties in parking a car overnight. The debate on traffic restraint has focused on influencing car use rather than car ownership. The introduction of "car free" and "car reduced" residential development in certain inner city areas is also another option. In future, many city dwellers may choose not to own a car for their own personal use because of the difficulty of parking the vehicle, but instead take part in neighbourhood car fleets/city car clubs which give them access to a car (of different sizes and types for different purposes) as and when needed.

The Advantages and Limitations of Parking

Valleley (5) identifies the following advantages and limitations to the use of parking policy as a means of achieving transport and wider policy objectives.

The advantages:

- Can further a wide range of urban policy objectives;
- Represent one of the few ways of directly managing or restraining car use;
- Can be introduced relatively quickly and cheaply (compared to major infrastructure schemes);
- Are flexible and can be modified to reflect changing circumstances; and
- Produce a revenue stream.

The limitations meanwhile show that:

- There is a lack of clear understanding about the precise effects of the measures;
- Incomplete control of the parking stock can limit the ability to achieve the objectives;
- Policies are not developed and implemented in a comprehensive way due to the organisational and institutional complexities of the parking system;
- There is conflict between the objectives that parking policy is aiming to serve;
- They are not a total solution and need other supporting measures if urban policy objectives are to be achieved;
- They cannot restrain or manage through traffic;
- Implementation of localised solutions may just displace the parking problem, with consequent safety and amenity impacts; and
- Parking controls can be rendered ineffective by lack of adequate enforcement.

In addition, parking measures can also help to achieve rural objectives, such as the management and protection of tourist locations such as in National Parks.

Overarching goals

In general, while the emphasis will vary from place to place, and from time to time, the general goals will relate to the success of the area in social, economic and environmental terms. In addition the Government has highlighted in the new guidance for future LTPs four key principles (6). These are that LTPs should:

- Set transport in a wider context;
- Set locally relevant targets for outcome indicators;
- Identify the best value-for-money solutions to deliver those targets; and
- Set trajectories for key targets, to enable greater transparency and rigour in assessing performance.

In doing so the Government, in conjunction with the Local Government Association, have identified four key priorities that should be reflected within the policies and programmes contained within the LTP. These are: accessibility, congestion, air quality and road safety. Other priorities may be developed by

individual local authorities to address specific local issues. Invariably, parking in its various guises has an important, if not critical, role to play in how local authorities can meet successfully those key priorities.

The Government has established criteria for the appraisal of transport schemes (7), and these can guide consideration of parking strategy objectives. These criteria are:

- Accessibility
- Economic vitality
- Efficiency
- Environmental quality
- Safety and security
- Social inclusion and equity

These are discussed in turn.

Accessibility

Car parking is about providing access, in enabling car users to undertake trips for a range of purposes associated with land uses at the origin or the destination. Parking is also inherently involved in access by other road vehicles, including taxis, cycles, powered two-wheelers, coaches and freight vehicles, though the issues raised are often different from car parking. For example, access by coach does not necessarily mean that the coach must be parked at the destination served, while cycle parking can be encouraged without creating significant negative impacts.

Parking provision and control can be used to increase or decrease vehicular-based accessibility. However, parking alone does not determine overall levels of accessibility of an area. In some places parking can mean lower accessibility for those using other modes of travel. Accessibility needs to be assessed in terms of people and goods rather than by vehicles. In this way, for example, central London is clearly the most accessible location in Britain, yet it has relatively poor accessibility by road vehicle. Conversely a development next to a motorway junction in the Midlands may be extremely accessible by road vehicle and yet be virtually inaccessible by any other mode.

There is, and will continue to be, an imbalance between the demand for road and parking space and its supply, particularly in large towns and cities. Accessibility by car will, therefore, have to be limited to reflect local conditions and environment. This involves controls on the degree of vehicular access given to different types of user and at different times. Parking controls must, therefore, be seen and used as part of overall traffic and transport management.

The Government are also putting greater weight on accessibility considerations in transport planning decision-making than hitherto. Draft guidance on accessibility has been published (8). Accordingly, local authorities will need to give much greater attention to accessibility as a planning tool. It is crucial to focusing development in the right location and enabling people to access the things they need in a way that reduces travel, particularly by car. It is also a means whereby the amount of parking in a development can be minimised without prejudicing its viability.

Accessibility planning can operate at four levels within local authorities:

1. The formulation and revision of development plans and frameworks;
2. The formulation and revision of Local Transport Plans;
3. The negotiation or carrying out of Transport Assessments in relation to new developments. Details about Transport Assessments appear in Chapter 3; and
4. The encouragement or carrying out of Travel Plans in relation to both new and existing developments.

Accessibility appraisal techniques vary in their degree of sophistication:

- Basic catchment area methods simply sum the opportunities (people, goods, services, etc.) that can be accessed within a given time by a defined mix of transport modes;
- Opportunity methods take this approach further by weighting the opportunities according to their degree of accessibility; and
- Value measures may then make use of a standard unit such as generalised travel cost to arrive at a quantified measure of accessibility. An example of this is the PTAL public transport accessibility tool (9).

An example of how public transport accessibility can be linked to parking policy is found in the London Planning Advisory Committee's (LPAC) 1997 *Parking Advice* (5). LPAC developed a parking standards matrix, which incorporates public transport accessibility. This uses the level of public transport accessibility as the main determinant of maximum parking provision in new developments, which is represented on one axis of the matrix. The other axis aims to give greater reflection to local authority planning and transport policy objectives as represented by the level of sustainability. It is important that this type of approach to determining parking standards occurs within a wider locational framework that guides development to the most accessible locations.

Most methods readily lend themselves to visual representation, often using GIS techniques. However, care needs to be taken when interpreting accessibility data, particularly by value measures. For example, a PTAL analysis measures access from a site to a public transport service. Other methods are needed to assess accessibility to a site by public transport, which will be more relevant where public transport networks are relatively sparse.

Accordingly relevant objectives for meeting accessibility considerations might, therefore, include a need:

- To retain a reasonable level of access by private car;
- To enhance access by other modes of transport;
- To promote a level of parking stock in accordance with the two objectives above;
- To allocate parking space in locations appropriate for particular journey purposes (ie, short-stay parking in the town centre and long-stay on the outskirts); and
- To permit a level of parking with new development that is appropriate with its location and with wider community goals.

Appropriate policies are covered in the next chapter (Chapter 6), but they should be linked to targets like:

- Undertake changes in car parking charges so that longer stay car parkers are steered to car parks on the outskirts of a town;
- Consult community and business representatives on changes to parking charges before implementing changes within a specified period;
- Identify areas that require different levels of accessibility and implement necessary changes within specified timescales;
- Review and amend car parking standards so that other modes of travel have adequate provision;
- Monitor and change the proportion of total parking under public control or influence; and
- Review and change parking charges when demand exceeds 85% of supply.

Economic Vitality

The need to maintain and enhance the economy of an area is often the predominant urban goal influencing policy, including

transport and parking policies. Parking provides access to goods and services and thus facilitates economic activity. The provision of ample parking space is seen by many local authorities as a key factor in economic development. This view may be simply a response to developers' requests, or public perception, based on traditional rather than current planning policy. There will need to be a change of approach whereby good access rather than simply good car access becomes the main issue.

The Government, in PPG6, (now PPS6) argues in favour of good-quality town centre car parking to help retail developments to compete with out-of-town stores. Out-of-town centres are attractive to car borne shoppers and can provide a wide range of goods with cheap or free parking. However, town centres need to maintain their competitiveness by providing a different kind of experience, based upon a wide range of comparison goods and a high quality environment.

Moreover, the relationships between amenity, activities and accessibility (including roads, parking and other modes) are complex, and the view, widely held, that more parking is necessary for the viability and vitality of town centres is based upon an assumption rather than a fact. Indeed the way in which parking supply is managed is likely to impact on the way the local economy is perceived.

Ideally towns should work together when determining parking supply and price, since providing parking incentives unilaterally may cause unreasonable competition and draw in customers from neighbouring catchments, thus increasing the overall length of shopping journeys by car. Equally, there is no point in deterring car users from using a particular centre if this leads to excessive travel to competing centres. The Regional Transport Strategy should be an important mechanism for coordinating parking strategies of competing centres.

As well as the implications for economic policy objectives, parking itself is an economic activity. Local authorities receive income from operating publicly provided parking facilities, and from fines for infringements of parking regulations. In recent years there has been increasing pressure from central government for a local authority's parking operation to be self-financing. The arrangements for the transfer of the enforcement function to local authorities, introduced under the 1991 Road Traffic Act, state that the operation must become self financing as soon as possible. These issues are dealt with more fully in Chapters 7 and 8.

Relevant objectives, therefore, might include:

- To provide parking to support the local economy;
- To manage parking to encourage short stay visits in the town centre;
- To integrate the charges for parking with objectives for other modes of travel;
- To charge for parking to ensure a reasonable balance between the demand and supply for parking at all times; and
- To ensure that parking revenues cover parking costs.

Again appropriate policies are covered in Chapter 6, but suitable targets might be:

- Peak demand not to exceed 85% of supply at all parking locations;
- A declared level of parking space in the town centre that emphasises short stay parking; and
- X% of on-street car parking space in the town centre (defined) to be converted to alternative uses within a designated period.

Efficiency

The policies adopted should enable the most efficient use to be made of public resources, including the transport infrastructure. The extent and management of parking can influence the extent and quality of access by car as compared to access by other modes. One of the difficulties in achieving an efficient balance is the fact that a large proportion of parking space is in private ownership.

Private non-residential parking typically forms half or more of the total stock in town centres. This means that policies to influence demand through parking are less efficient than if local authorities were able to control the entire parking stock.

Residential parking spaces within the dwelling curtilage lead to inefficient use of spaces since they cannot be readily expanded or contracted in response to fluctuations in demand within and between households over time. Collectively provided parking is potentially more efficient, in that demand can be met with less spaces overall. This enables higher densities to be achieved for a given level of environmental quality. (See references to Llewelyn-Davies) (10).

Parking controls as part of traffic management schemes can promote more efficient use of road space, for example by allowing the introduction of bus and cycle lanes when parking is restricted.

The effect of on-street parking on the capacity of the highway is poorly understood. Early studies sought to demonstrate the relationship between carriageway width, frequency of parked vehicles, and throughput of vehicles. Now it is recognised that the relationship is far from simple. For example, the design of junctions has a far greater impact on capacity than the width of links and incidence of parking between them. Conversely, it is generally acknowledged that parking near junctions can have a disproportionate impact on capacity.

If capacity is measured in terms of people and goods rather than vehicles, better overall accessibility may be achieved by allocating space and time to non-car modes. In a more holistic approach to traffic management, throughput in some instances is less important than the ability of a street to support pedestrian activity, as in a shopping street for example. Preventing delays to vehicles is still an important objective of the management of street and parking space, but it is no longer (or should not be) the sole criterion. The Traffic Management Act (11) provides for a more network-orientated approach than hitherto.

Parking is also a land use. It is necessary to question whether the competing demands for space would mean that the land consumed by an off-street car park could be used more efficiently if used differently. To make such an assessment requires the cost of providing the car park to be related to the value of its contribution to the urban economy. Typically such assessments are made in a qualitative rather than a quantitative way. Maximum parking standards may have the effect of encouraging more productive use of land, but again this may not be the most efficient in transport terms. One way of moving towards greater efficiency would be to ensure as far as possible that all town centre parking is under unified public control or influence and is charged at a rate that reflects the cost of provision including land, debt charges, asset depreciation and other costs.

Shared provision of parking between different land uses and activities will tend to increase efficiency, for example weekend leisure use of spaces used by office workers during on weekdays. Many local authorities now require shared provision as a condition of planning consent,

including the sharing of space between customers and the general public at stores.

Park-and-ride schemes can represent a more efficient use of road and parking infrastructure. Parking space is provided at the edge of the urban area, with a public transport interchange. The roads serving the town centre are used more efficiently, with a reduced number of vehicles, particularly at peak hours. The same number of people can access the urban centre, but in fewer vehicles. This will only occur, however, if the town centre parking opportunities are reduced accordingly. In considering carefully park-and-ride proposals, attention should be paid to the overall objectives and decisions about the use of the park-and-ride facility in relation to town centre parking through, for example, by:

- Reducing town centre spaces by the amount provided at the peripheral site;
- Converting town centre spaces from long to short stay if the Park-and-Ride site is mainly used by commuters; and
- Using Park-and-Ride to increase the overall availability of parking without increasing town centre parking (for example, in line with an increase in employment or retail floorspace).

The efficiency goal should also include the efficient management of public car parks to secure a satisfactory financial return on the capital assets.

Relevant objectives to increase efficiency might include:

- As parking uses land, to encourage shared space for new development;
- To reduce inappropriate parking in places that lead to traffic movement difficulties;
- To achieve more efficient use of land by relocating parking to lower-cost areas, for example by providing park-and-ride and other inter-modal facilities;
- To increase the proportion of parking that is subject to local authority control, in particular to reduce or gain influence over the amount of private non-residential (PNR) parking;
- To reduce the demand for private off-street car parking spaces through Travel Plans, or workplace parking levies;
- To charge for parking that optimises use; and
- To encourage modes of travel other than the car.

Appropriate policies are set out in Chapter 6, but relevant targets might be:

- Review and change parking standards within a designated timescale;
- Review and change parking charges within a specified period;
- Re-locate parking from town centre to the edge of town locations by a specified time; and
- Delays to buses caused by parked vehicles to be reduced by X% within specified time period.

Environmental Quality

The control of traffic levels through the use of parking controls represents a valuable means of meeting environmental objectives. The environmental effects of traffic in terms of noise, air pollution and visual intrusion are well established. It is environmental goals that see parking controls as a means of controlling traffic growth, and thereby controlling the effect of the transport system upon the environment.

Street management, in its widest sense, represents the public face of the built environment. Most people experience either some aspect of parking, the use of the highway or the street scene on a daily basis. Reducing, therefore, the unwanted effects of road traffic and parking and improving the quality of the environment in

which we live and work should be seen as a priority. Improving urban design in highways, transportation and parking policy and practice can have a pivotal role to play in the economic, social and environmental well being of our villages, towns and cities. But it needs to be seen in context, as part of a bigger picture, and balancing a range of frequently conflicting interests. This often requires a multi-disciplinary approach to design when changing the street scene and parking environment.

Changing and managing the highway and parking environment are primarily about creating successful communities. It is important, therefore, to recognise the interactions between the various elements and the necessary policy interventions that combine to create and maintain better places.

"By Design" (12) states *"Urban design is the art of making places. It is not just about making places visually attractive, but is crucial to how places function, to maintaining and enhancing the vitality and viability of town centres, to regenerating rundown areas and to creating safe communities where people feel secure."* Thinking about good design from the start of the planning and development process is the best way to promote successful and sustainable regeneration, conservation and place making.

A significant factor in the quality and success of a new development is on how sensitive it is to the local context, including its connections to existing areas and the convenience, safety and comfort with which people are able to get to and move through it. New development presents an opportunity to create places that promote and encourage movements through all modes of travel, rather than on a concentration upon vehicles. A successful parking strategy will, therefore, embrace the principles of good urban design.

Further guidance on the fundamental principles to good design and how these may be applied is set out in "By Design", whilst "Better places to live" (13), the companion guide to PPG3, sets out the attributes which underlie well-designed, successful residential environments.

Relevant objectives might, therefore, include:

- To minimise visual intrusion caused by parked vehicles;
- To encourage travel by modes other than the car, as a means of reducing the environmental impact of motor traffic;
- To design and maintain parking areas and structures, signs and markings so as to blend with and not detract from the surrounding environment;
- To create high quality urban design within retail and commercial areas (with less on-street parking);
- To enable a X% improvement in air quality in key locations; and
- To locate and design parking provision and access roads so as to avoid environmental conflict with the activities served.

Suitable policies are set out in Chapter 6, but measurable targets might include:

- On-street parking provision in new developments to be provided in bays and landscaped, implemented as planning policy with immediate effect;
- On new residential access streets, developers to contribute X% of the cost of parking alongside adoptable streets;
- Single bay meter control to be converted to pay-and-display (reduced meters) within three years; and
- Parking control signing improvement schemes to be drawn up within two years

and implemented within five years.

Safety and Security

Safety and security, of people, vehicles and possessions, are of paramount importance in developing and implementing effective parking strategies. Indeed, safety is arguably a top priority for anyone engaged in changing the road environment and the allocation of land. Parking strategies must be well rooted in the relevant community safety strategy, crime reduction plans and the Local Transport Plan for the area.

Parking strategies must pay due regard to the personal safety of everyone likely to use a facility or service. This includes movement to, from and within parking facilities and services. Special attention should be paid to the particular needs and concerns of women, the young and the elderly.

Parking facilities should avoid poor lighting, places where strangers can hide, dark areas, uneven footways and floorscape, exposure to traffic risk, creating places and opportunities for anti-social behaviour and creating secluded or lonely places. Closed circuit television (CCTV) and good lighting have a major role to play in reducing real and perceived danger, as do maintaining a human presence at otherwise quiet times. The Department for Transport have published literature that planners and designers should take into account when considering the safety consequences of their actions or intentions (14).

The British Parking Association (BPA) became the administrating body for the Secured Car Parks Award scheme in October 2001. The scheme, launched by the Association of Chief Police Officers, aims to raise security standards within car parks and thereby reduce car related crime, 22% of which occurs in car parks.

To be awarded Secured Car Park status owners and operators must meet a stringent set of standards, including good design and management, an effective level of security patrols, good lighting and the provision of help points. By 2004 over 1100 car parks in the UK held Secured Car Park status and operators as well as users have seen the benefits of increased security within car parks. For example, the Luton bus station car park increased its usage and revenue by 65% following the award, while the Woodhouse Lane car park in Leeds generated an extra £160,000 a year in fees from contract parking as a direct result of work undertaken to achieve award status (15). The scheme, and the associated reductions in crime in member car parks, supports the Home Office and police strategies to fight car crime. The Association of Chief Police Officers (ACPO) manages the police element of the project through the ACPO Crime Prevention Initiatives Ltd, a not-for-profit organisation wholly owned by ACPO.

Relevant objectives might include:

- To improve the quality and standards of car parking provision;
- To ensure that all off-street car parks have adequate lighting and security controls; and
- To gain Secured Car Park Status.

Again policies are explained in Chapter 6, but linked targets might be:

- All off-street car parks to be brought to an acceptable standard of safety and cleanliness within 10 years; and
- Obtain Secured Car Park Status within a specified time period.

Social Inclusion and Equity

The key issue here is between those who have ready access to a private car, and those who do not. To the extent that provision

for car use (for example through the provision of ample free parking) reduces the quality of access by other means, creates inequality between these two groups.

This has had some profound consequences over time, as developments such as superstores, business parks, and large hospitals have been located where they are relatively inaccessible by means other than the car. Not only are such opportunities denied to people without cars, such developments have often led to the closure of facilities in accessible locations.

Government policy is such that, in the case of new housing development, priority should be given to the needs of pedestrians rather than the movement and parking of vehicles. Home Zones may be a useful mechanism to consider in such circumstances.

There is also the issue of equitability in the distribution of parking and other urban street space. The implementation of parking policy often means that, where the demand for space exceeds supply, controls are needed which influence the level of access of different types of users to the available space. Users of car parking include commuters, shoppers, business users, disabled badge holders and residents. It is often necessary to establish a hierarchy to prioritise the needs of different user groups as a first step in establishing an equitable distribution of available space, taking account of all the competing demands. A number of criteria have to be considered when developing such a hierarchy. These include:

- The amount of kerbside space available in relation to overall demand. (Where the amount is tiny in relation to demand, there may be little point in making it available for parking);
- The value of space for pedestrian activity and amenity compared to its use for parking;
- The priority accorded to different modes of transport;
- The presence of economic activities; and
- The importance of different user groups to the quality and success of the area.

Such a hierarchy has been introduced with the Priority Red Route Network in London. A set of kerbside controls seek to meet the needs of moving traffic first, followed by the need for kerbside access for loading and unloading, then parking for people with disabilities, for residents whose dwellings front on to the network, with the needs of short term parkers being met last. Long term parking during the day is not generally provided.

Different hierarchies of priority for the allocation of space will be needed for different parts of the road network. For example, top priority to moving traffic may not be appropriate where main roads serve also as local high streets.

Priorities for a main road through a local centre might look like this:

1. Catering for pedestrians;
2. Keeping vehicular traffic moving;
3. Providing for loading;
4. Providing for those with mobility impairments (usually identified by the Blue Badge);
5. Providing for residents;
6. Providing for visitors – short stay, and
7. Providing for visitors – long stay.

Allocating kerbside space (including constructed bays) on the basis of such hierarchies ensures that all interests are considered in relation to wider objectives.

Appropriate objectives might include:

- To change the amount of parking space in order to encourage the use of other modes;
- To use parking controls and charges to encourage modes of travel other than the car, to

discourage use of the car (whilst recognising that for some disabled people use of a car is the only option available) and to improve the quality of public transport, walking and cycling; and

- To allocate street and road space to other modes of travel (eg, bus lanes created from on-street parking space).

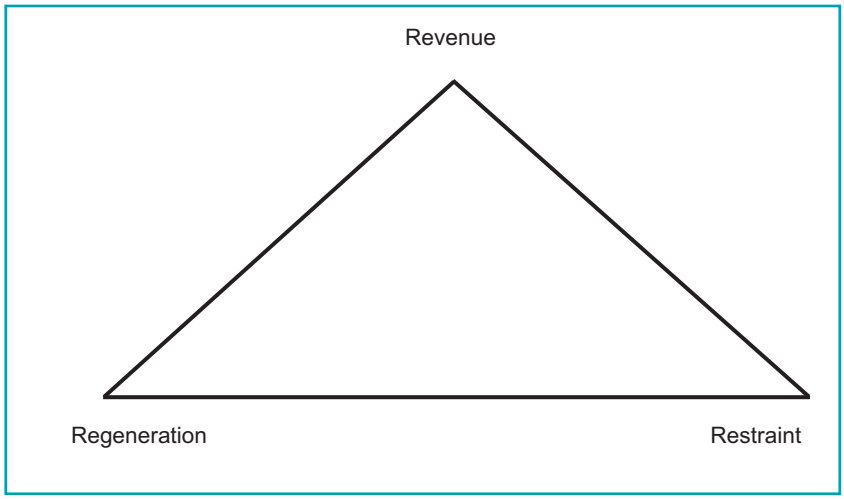
Policies are set out in Chapter 6, but targets might include:

- X% of on-street parking space in the town centre (defined) to be converted for pedestrian use within 10 years; and
- Residential design guide (including provision and design of parking) to be prepared within X years.

Reconciling conflicting Objectives for Parking Policy

The task of balancing parking supply and demand can rarely be carried out without the need to reconcile conflicting objectives and interests. It is, therefore, important that local authorities establish a mechanism whereby different aspects of parking can be coordinated with each other, and with other aspects of policy on which they have an impact. Too often there is little coordination between, for example, the provision of parking in new developments and the management of off-street car parks.

Figure 5.2: Conflicting Parking Policy Objectives.



Three specific objectives can be identified as being a frequent source of conflict:

- The desire to use parking measures as a means of **regenerating** a specific part of the urban area such as the town centre (ie, providing more parking to attract business);
- The desire to use parking controls as a means of **restraining** vehicle traffic and improving environmental quality, or to encourage the use of non-car modes; and
- The need to secure sufficient **revenue** from the parking operation to cover costs or to make a surplus to fund other activities.

As represented in Figure 5.2, the pursuit of one objective alone will potentially result in the other two being compromised. The provision of ample parking space as a means of regenerating an area will directly conflict with the desire to use parking controls as a means of restraining traffic levels. Parking charges may be kept low to attract visitors, but this may mean that it is impossible to generate sufficient revenue to balance the parking account. The pursuit of the restraint objective may mean that regeneration is harder to achieve if the economy of the area suffers by deflecting car users to other accessible destinations with a consequent negative effect on the parking account. Likewise the pursuit of the revenue objective to maximise availability of charged – for spaces would run counter to the other two objectives.

The task in resolving such conflicts is twofold:

1. Priorities must be identified, and policies developed that reflect these priorities; and
2. Creative solutions should be sought to ameliorate the source of any conflict.

Sometimes it is best to retain objectives that conflict, rather than trying to achieve a text with

which everyone agrees. The particular balance of interests can be explicitly stated, and acknowledgement given that certain interests have not been satisfied, and why. The advantage of this approach is that the debate and the reasons behind controversial decisions remain visible, rather than being obscured by rhetoric. For example, an objective of increasing car access to town centres for shoppers is likely to conflict with an objective of encouraging public transport use. If priority is given to the latter objective, then that must be stated as a reason why town centre parking is not to be increased, or why park-and-ride is to be expanded.

A legitimate complement to creative solutions is to ensure that issues are looked at and dealt with strategically.

Rural Issues

PPG13 notes that, whilst the potential for using public transport, walking or cycling is more limited in rural than in urban areas, the same overall policy approach should be used. Indeed many of the objectives and targets set out above may be appropriate for sensitive rural locations. In addition the policy approach should be used to promote social inclusion, reduce isolation and improve accessibility for those without use of a car.

PPG7 (16) sets out the planning policy framework for rural areas. The key issue for rural development is the encouragement of rural diversification so as to increase the range of job opportunities and access to other facilities in rural areas. However, it is important that rural development, and consequently its parking needs, is of a scale that matches the density of population in rural areas and is sited in the most accessible locations, particularly for those who do not have access to a car. In general this will mean smaller scale development in keeping with rural population densities, located in key rural towns and villages. Such development is likely to be below the thresholds for maximum parking standards set out in PPG13.

Specific issues, however, arise at key rural tourist locations, including the National Parks. Many rural tourist locations depend on access by car, but policies and schemes can still be applied to promote access by a range of transport modes. Parking management strategies should be developed for these areas and locations that encourage the most sustainable means of access. In particular, park-and-ride possibilities should be explored as one means of reducing the stress on the rural road network. Some rural attractions already incorporate in their publicity material means of access by public transport. Local authorities can encourage this.

One particular incentive may be to enable access by non-car modes in those cases where excessive car use leads to extreme deterioration in the quality of what people have come to see. In such instances visitors may readily accept the need to transfer from car at a distance from the attraction in order to protect the attraction itself.

Appropriate signing and information displayed in rural settings

References

(1) Transport Research Laboratory (TRL) 1994.

(2) LPAC 1998.

(3) SERPLAN Parking Policies for the South East 1993.

(4) LPAC's Parking Advice 1997.

(5) Valleley, M *et al*, 1997, Parking Perspectives, Landor, London.

(6) Department for Transport: Full Guidance on Local Transport Plans, Second Edition 2004.

(7) DETR, 2000, Guidance on the Methodology for Multi-Modal Studies, (GOMMS).

(8) Department for Transport: Accessibility Planning – Draft Guidance 2004.

(9) Greater London Authority, 2002, SDS Maximum Parking Standards: derivation of PTAL-based parking restraint, SDS Technical Report 20.

(10) Llewelyn-Davies, 1998, Sustainable Residential Quality: new approaches to urban living, for DETR, LPAC and Government Office for London.

(11) Traffic Management Act 2004.

(12) DETR/CABE, 2000, By Design: Urban Design in the planning system: towards better practice.

(13) DTLR/CABE, 2001, Better places to live: By design.

(14) Department for Transport, 1999, Personal Security Issues in Pedestrian Journeys.

(15) British Parking Association.

(16) PPG 7 The Countryside, DETR, 1997.

Chapter 6 Formulating Parking Interventions

Introduction

This chapter sets out the schemes, policies and protocols (collectively referred to as interventions) that can be brought into play to meet objectives. The various topics are grouped under 4 headings

- 1. The quantity of different types of parking space;
- 2. The quality of parking spaces (location, level of service, design);
- 3. Parking control and pricing – both on and off-street; and
- 4. Management of Parking (Protocols).

The Quantity of Parking Space: How much parking?

One of the important considerations is to determine how well the supply of parking space relates to the level of demand in the area, both at present and in the future, and to decide whether more or less space should be provided. This needs to take account also of the variability of parking demand. Such considerations have to be set within the policy context within a Parking Strategy. To balance supply and demand, the options are to increase supply or to limit demand through price or regulation. Attempts to limit demand by allowing parking shortages to occur (i.e. when car parking spaces are full) should be avoided, since the absence of spaces available for use causes frustration and "searching" traffic, which is inefficient and environmentally damaging. The quantity of parking cannot realistically be decided without also deciding on the conditions and charges for use.

The steps involved are, therefore:

- 1. Decide on the quantity of parking, together with its allocation as between different types of use, its use over time and its consistency with mode split targets and other objectives;
- 2. Take measures to achieve the desired quantities in different categories; and
- 3. Set charges and controls at a level that will keep peak demand at no more than about 85% of capacity.

A number of mechanisms exist by which a local authority can influence the amount of parking space:

- Street design;
- On-street controls;
- Negotiated levels of parking in new development (the lowest that are workable within prescribed maxima);
- Planning permission for the conversion of parking space to other uses;
- Planning permission for new car parks; and
- Local authority provision or removal of public off-street car parks.

Whilst these issues should be considered in the context of developing Local Transport Plans and Parking Strategies, they will also need attention through the Travel Plan and Transport Assessment procedures. Awareness of Planning Policy Guidance advice is also important. For example, PPG3 requires local authorities to lower significantly their permitted levels of off-street parking.

New developments should now be planned with parking provision lower than the potential (ie, unmanaged) demand, and planned instead to operate with a high proportion of access by means other than the car. This means that potential demand can exceed supply in these developments. Controls on parking on-street are required in order to achieve the objective of the planning policy and limit demand for car use.

The quantity of off-street parking is an important variable when managing demand for car use, not only in town and city centres, but at all locations where activities attract access by car. Local authorities have influence over the supply of publicly provided car parks, but only indirect influence over the existing stock of private car parking.

How much on-street parking?

The amount of on-street parking that is potentially available is largely dictated by the design characteristics of the road and street network, namely the overall highway dimensions, and the proportion of space allocated to parking. The quantity of parking can be increased in some places, for example by marking out chevron rather than “in-line” parking bays, but street widths in the UK rarely allow this.

There may be important benefits that can be obtained by reducing the quantity of on-street parking. Removal of on-street spaces in the heart of the town centre, or converting them for disabled badge holders only should be considered, where appropriate. Such on-street spaces can lead to a traffic nuisance that is disproportionate to the benefits of the tiny minority of visitors who can benefit from them. This is because:

- These parking spaces take up space that could be used for pedestrian and/or environmental improvements;
- Vehicles manoeuvring in and out of spaces in streets with high pedestrian activity cause a particular hazard; and
- Drivers will, if they know that on-street spaces exist, drive around the town centre streets simply to see whether a space is free, thus generating unnecessary traffic in the places where it causes most nuisance.

In town centres and other places with a concentration of non-residential activities, parking demand is likely to exceed supply and, therefore, there will be a need for controls. Similarly in many residential areas built without off-street parking or garages, controls will often be necessary to manage space allocation on the street. The quantity of parking spaces will tend to be lower with a control scheme than before because of space kept clear for safety or amenity reasons. Without controls safety and amenity are compromised.

How much off-street parking?

Decisions on the amount of parking that should be provided in a given area should take account of the following:

- Modal split targets or traffic levels (the quantity of parking usually allows a calculation of both);
- Capacity or environmental sensitivity of the roads within and leading to the area; and
- The planned future level of activity in the area, for

example expansion of retail or employment facilities.

Ownership, Control and Management of Off-Street Car Parks

Off-street car parks provide much of the parking stock in town and city centres, and, therefore, it is desirable for the local authority to have control over their use or at least a major influence through private/public partnerships in order to implement their policies. Public off-street parking is provided in surface, multi-storey or underground car parks.

Shopping centre managers operate many of the larger car parks in town and city centres with the result that the local authorities often have little or no control over the tariff structure adopted. This limits the effectiveness of local strategies. Local Authorities therefore, should try to avoid such arrangements in future, and make efforts to retrieve or gain influence over existing car parks through a Parking Strategy.

Car parks should provide for all visitors to a centre, and planning conditions need to be placed on new private car parks to ensure that this happens. For existing car parks outside the control of the local authority (for example where they were provided without such control, or where control has been irrevocably transferred), the local authority should consider what incentives could be provided to encourage public use, or conversion to another land use. Failing that, mechanisms should be established to encourage understanding and joint working with companies and organisations to achieve at least some objectives.

All off-street car parks contribute either positively or negatively to the achievement of strategic objectives. Provided that the long term desirability of a particular car park is clear, its operation and management may be undertaken by private companies, but on the basis of contracts that enable the local authority to influence patterns of usage. This will usually mean control over:

- Tariff structures;
- Charge levels;
- Hours of operation;
- Specification of minimum standards of provision and maintenance.

Where authorities put their off-street parking stock into the control of contractors they will need to specify clearly how charges will be determined and how a strategic approach to charging will be maintained.

The ownership and management policies may not be readily identifiable to the user. Private companies operate many car parks on behalf of a local authority or shopping centre owner, either as managers, passing the income to the owner and being paid a management

Surface, Multi-storey and Underground car parks.

fee, or as lessees. Where a local authority owns the freehold of a car park and has leased it to a private operator they may retain some control over setting of tariffs, in order to ensure that it is managed in accordance with stated policies. The important point is that decisions about ownership and management of car parks should be taken with reference first to strategic transport and planning objectives. The question of financial viability also comes into this and it may be better to engage in private/public sector partnerships over how car parks are provided and operated.

Changing the amount of parking

The Parking Strategy should indicate the total amount of parking that is appropriate in the town or city centre, or at other locations that attract trips. Changes in the total amount will need to be managed through a combination of active projects (such as the building of a new car park, the removal of an old one, or a reduction of on-street space), and through exploiting opportunities as they arise through development or redevelopment. When there is pressure for redevelopment, the Strategy should indicate whether more or less parking should be provided in the new scheme.

The Strategy may also include a policy of changing the relative proportion of different types of parking, for example:

- Reducing the proportion of parking outside local authority influence;
- Reducing the proportion of parking available to all-day commuters; and
- Reducing the proportion of parking accommodated on surface car parks, or on-street.

The implementation of the off-street parking arrangements of the strategy must, therefore, take account of all aspects of parking in the area concerned.

Incentives for changes to private parking

A large proportion of the total stock of parking in town and city centres comprises parking provided within office and other developments whose use is available only to those who are invited to do so by the owner or occupier.The presence of this parking severely limits the ability of the local authority to manage parking to meet planning and transport objectives. To ensure that the full potential of a parking strategy is achieved, it will be necessary to adopt a policy of reducing, over time, the amount and proportion of parking that is outside the local authority's control or influence.

Local authorities should, therefore, establish appropriate policies and use opportunities to reduce the proportion of car parking that lies outside their sphere of influence. There may be incentives that can be applied or offered to the owners of such car parks to encourage their conversion or redevelopment for more productive uses. Such incentives might include, for example:

- Owners and occupiers can be offered alternative premises within the context of a redevelopment or regeneration scheme that are more accessible by non-car modes (ie, land swap deals);
- The local Development Plan can indicate where planning applications for redevelopment will be encouraged, including existing developments with excessive private parking; and
- Workplace Parking Charges could provide an indirect incentive for the more intensive and productive use of private parking space.

Local authorities should also review the use and potential of their own car parking in this light.

Park–and–Ride Car Parks

Park-and-ride car parks can be provided at railway stations or in association with frequent bus services to town and city centres. Park-and-ride may also be provided for access to occasional or special attractions where there is an advantage to keeping parking "off-site" for safety, traffic or environmental reasons. Given the time and cost penalty of switching modes, people will not use them for short visits. For a comprehensive range of information see the references to Parkhurst at the end of the chapter (1).

The justification for park-and-ride is usually based on one or more of the following:

- To provide additional access for car users to a centre without increasing parking supply in the centre;
- To enable the amount of parking in the centre to be reduced, for example to allow the expansion of retail or other activities (thereby relocating parking out of the centre);
- To provide for categories of car user who are discouraged from parking in the centre, for example car commuters to work; and
- To reduce traffic on roads leading to the centre, either in general or specifically at peak times.

Park-and-ride can reduce traffic in city centres and on the roads leading to city centres, but may not reduce car use overall. Some travellers who would have made the whole trip by public transport choose to drive to the fringe of the city and use park-and-ride. Careful study is, therefore, necessary to forecast the impact on travel demand, including the relative sensitivities of different routes and destinations, before deciding to adopt a park-and-ride solution.

Much will depend on whether the facility is used primarily by commuters (as with station car parks in the South East) or by shoppers and tourists. If dedicated bus services are provided, these are much less likely to be financially viable when the car park is used mainly by commuters, since the buses will have few passengers in between the peak commuter times. On the other hand, it may be possible to set higher charges for commuters than for shoppers.

The potential advantages of park-and-ride include:

- Increasing the volume of visitors to a centre without increasing parking in the centre;
- Enabling a centre to serve a regional or sub regional catchment area that is predominantly car-dependent, without having to accommodate cars in the centre itself; and
- Enabling a reduction of parking in a centre by relocating it to areas with lower land value and/or lower environmental sensitivity.

The disadvantages of park-and-ride include:

- The car park may take land within the walking catchment of public transport stations or stops, thus pushing development further away.
- They may encourage people to drive part of the way instead of taking public transport all the way;
- They may encourage people to drive to a park-and-ride serviced centre, rather than use public transport to reach an alternative centre; and
- Car parks located at the edge-of-town or out-of-town may be environmentally intrusive, and may create pressure for car-based development.

To be operationally successful, park-and-ride needs to have the following characteristics:

- Located on radial routes with public transport priority;
- Serve a centre with high parking charges and/or limited parking supply;

- A secure car park clearly signed from approach routes;
- High frequency services; and
- High quality service attributes including information, vehicles, drivers, and tariffs.

Park-and-ride at rail stations usually provide for commuters travelling to a city centre. Most are provided by and managed by the train or tram operating company. “Parkway” stations can provide easy access to the rail network from areas poorly served by rail, and reduce traffic accessing stations in central areas, but the potential consequence of encouraging more commuting from rural areas needs to be addressed.

Park-and-ride facilities need to be planned carefully so as not to run counter to local planning or transport policy and should be primarily assessed on the benefits they bring in helping to reduce congestion in town and city centres. In Denmark and the Netherlands, they provide “cycle-and-ride” facilities rather than just car parking.

Station Car Parks

Station car parks are also a form of park-and-ride facility, if not widely recognised as such. Fares and charges are often separate. They are usually managed by train operating companies, and are charged at rates that are perceived to benefit the companies involved. Where there is a high level of commuter demand, charge rates are usually higher than for public car parking in the vicinity, and frequently comprise one standard daily rate. Other, more short-stay users can be consequently deterred. Local authorities should establish liaison with the train companies in order to effect decisions that will influence transport objectives.

Problems can arise on streets surrounding stations from drivers who are parking and continuing their journey by rail. Known as “railheading”, this occurs where there is no station car park, or the car park is insufficient to meet demand, or where drivers want to avoid the parking charge. Although it may be desirable to encourage the use of rail for commuting, this must be balanced against the problems that railheading creates for residents and others around stations. Controlled parking zones can be created for such areas, with a tariff structure designed to achieve an appropriate balance. Space can also be considered for those who are railheading but who do not wish to park all day. This generally is not supplied in station car parks because it reduces revenue, but it can more readily be provided on-street with graduated charges.

New non-residential development

Decisions on the amount of parking to be provided in new non-residential developments are crucial in influencing the modal split and traffic volume trends in an area. If the quantity of parking allows for a higher proportion of trips by car than the average for the town or area, then that development will raise the average. Conversely, a policy to reduce the proportion of trips made by car in a town or area requires that a new development provide for less than the prevailing average car mode share. The alternative to this is to reduce the car mode share at existing developments, leading to what may be termed “trend-compensation”.

In determining these matters the local authority should establish maximum levels of parking provision for such developments and, within these, negotiate the lowest levels possible for individual schemes.

A policy can be considered whereby there is a presumption against the provision of private non-residential off-street parking. If all parking is available to all users there will be greater efficiency in the use of land, and

potentially important urban design benefits due to reduced need for access ways. The availability of communal parking can, therefore, serve objectives of safety, environmental quality, and efficient use of land.

New residential development

The extent to which reducing the availability of parking in residential development can contribute to the objective of overall traffic restraint is an important issue. It can start to impact on car ownership as well as influencing car use. Historically, both the trip frequency and the distance travelled by car are closely linked with car ownership. While it may be unacceptable to limit car ownership as a matter of policy, consideration should be given to policies that will lead people to choose to own cars less. This may involve, at the very least, ending practices that actually encourage car ownership.

The strategy should seek to deliver the objectives set out in PPG3. This requires local planning authorities to revise their car parking standards to allow for significantly lower levels of off-street parking, particularly for developments in certain locations. The strategy may also seek to achieve a reduced proportion of travel by car and a higher proportion of travel by modes other than the car. To the extent that this is achieved, there is likely to be lower demand for car ownership, and, therefore, lower demand for residential parking space. This can be seen in the relationship between public transport use and car ownership shown in Table 6.1 below, albeit that it relates to German and Swiss examples.

Some parking interventions may encourage more or less car ownership. Thus, more ownership can be facilitated by:

- Providing parking spaces within the dwelling curtilage, especially provision of two or more spaces; and
- Uncontrolled or free parking for residents on-street.

And less ownership encouraged by:

- Parking spaces or garages sold separately from dwellings;
- Parking spaces leased or rented rather than sold;
- Residents' parking permit charges; and
- Restricted issue of residents' parking permits.

Table 6.1 Car ownership and public transport use in four cities.

City	Number of public transport trips per resident per year	Cars owned per 1,000 residents
Berne	500	360
Zürich	500	390
Karlsruhe	220	488
Bonn	175	491

1	Cars excluded	Better use of existing standards, designed to provide areas on-site free of vehicles. Cars parked on periphery or underground.
2	Car reduced	Less than 1:1 parking provided. Parking provided on-site (as level 1), or on-street or at other off-site facilities.
3	Zero dedicated parking	No parking provided exclusively for the housing. Parking on-street or off-street shared with other activities or developments. No legal restriction on ownership.
4	Car-free housing	Car ownership neither provided for nor allowed. This means zero general parking provision and legal restrictions (voluntary or otherwise) on car ownership by residents. However, there may be provision for Neighbourhood Car Fleet shared cars, and possibly disabled persons vehicles.

Source: Apel, D *et al*, 1997, "Kompact, mobil, urban: Stadtentwicklungskonzepte zur Verhehrsvermeidung im internationalen Vergleich, DIFU, Berlin (2).

Car-free and car-reduced housing

As well as contributing to traffic restraint, reducing the amount of car parking in residential development can have other significant impacts. Research in London (3) concentrated on two key impacts: allowing higher density housing and thus accommodating more households, and improved residential quality. The study identified that between 25% and 40% of total site area in residential development is devoted to access ways and parking. This inevitably places severe constraints on the densities and environmental quality that can be achieved. Thus in housing as in all aspects of physical urban structure,

provision for the car is fundamentally at odds with the creation of high density and high quality built environments, or what may be termed "urbanity". The study identified a continuum of "car freeness" applicable to residential development that could make various degrees of use of such space, see above.

These classifications are in part descriptive of past types and patterns of housing, and in part prescriptive of what could be applied to new housing development. Local authorities will need to decide which approach would be most appropriate for any one development on the basis of its location and accessibility, and consideration of the lifestyles of potential occupiers.

The study paid particular attention to the areas within walking distance of town centres where, in respect of new development, the more restrictive levels of the above continuum would be more likely to apply. In these areas, it suggested that the following measures, which become progressively more restrictive, could complement the approach to the design of new housing:

- Extension of controlled and residents' parking schemes;
- The use of pricing mechanisms to ration parking spaces;
- Re-allocation of road space from car to bus and cycleways to provide disincentives to car use and incentives for more sustainable modes;
- Use of planning agreements and restrictive covenants on car ownership for purchasers of new housing within designated highly accessible locations; and
- Neighbourhood car fleets (or Car Clubs).

Edinburgh and the London Boroughs of Camden and Richmond have applied the "car free" approach to housing in their areas. They have concluded that to be effective the development needs to be in a controlled parking zone (CPZ) and that the best way of enforcing the car free element is to use the CPZ traffic management order to prevent the issue of a parking permit. Rationing of permits is by regulation rather than price and non-ownership is enforced by traffic order rather than by a planning condition. It is also possible to prevent the issue of parking contracts in private car parks to residents of car-free housing, though this must be achieved as a condition of planning permission, and specified so as to apply to all occupiers in perpetuity.

Car-free or car-reduced housing carries with it the inherent possibility that residents will own cars and park them on the street near the development. If the streets are covered by a CPZ, this may not cause any undue problems, and planning conditions can be used to ensure that residents of car free schemes do not park cars in the controlled area.

Outside areas with comprehensive parking controls it is difficult to see how car-free housing could be made to work. In those circumstances the issue then becomes one of how much parking and in what format, and whether on-street parking bays can be included as part of the overall supply of parking. This will be a matter for negotiation and design taking account of local circumstances. Factors to be taken into account should include:

- The amount of on-street parking space available;
- The likelihood of this being controlled at some point in the future;
- The current demand for parking on-street;
- The anticipated car-ownership profile of new residents;
- The likelihood of this profile changing over time; and

- The availability of public transport services and retail and other facilities within easy walking distance of the housing site.

City Car Clubs

Car Clubs can help to reduce parking demand where it exceeds supply, while at the same time Car Clubs offer greater benefit where such a parking shortage exists. Such Clubs, or neighbourhood car fleets, are a potentially important means of reducing car ownership, and thus residential parking demand. They may be useful in enabling car-free or car-reduced housing to work, but the great majority of Car Clubs operate in conventional residential environments. Car Clubs give people the opportunity to choose to use a car when it is most appropriate without the problems of owning and parking a car, especially in dense urban areas. Although some car rental companies now hire vehicles by the hour, a Car Club will potentially have wider appeal because vehicles are kept close to members' homes. It is estimated that the parking requirement for Car Club members can be reduced by 75%.

Car clubs are now found in Germany and the Netherlands. Several schemes are also operating in Britain and more are planned.

Experience with Car Clubs in mainland European cities suggests that membership is split roughly into thirds:

- One third are people who do not own a car;
- One third are people who own a car but need the occasional use of an additional car; and
- One third are people who have got rid of a car and use Car Club vehicles instead.

There is a reduction in overall parking demand in the third case, and possibly in the second case. Interestingly, it has been found that walking and cycling are the most popular alternative modes used, not public transport.

Car free and car-reduced housing

Case 1

Camden had 58 sites in total by 4th April 2000 that had been allocated for car free housing. Just over half of these already had planning permission.

Up to March 2001, planning permission for 670 car free housing units (in 79 schemes) had been granted.

Case 2

The Joseph Rowntree Foundation has built apartments in the centre of Leeds for mainly single people with incomes up to £20,000. After consulting focus groups to gauge reaction, one parking space was provided for each flat, though residents do have to pay extra for them. However, only 22 of the 46 spaces were let.

Case 3

In 1999, Crosby Homes North-west built 120 apartments with just 76 parking spaces two minutes from central Manchester's Deansgate station. The parking spaces were sold out at £15,000 each, but all the flats were sold. In 2000, a small development of nine flats next door to Deansgate Quay was built without any parking spaces – and all the flats were sold.

Integration of on- and off-street parking

Local authorities should seek every opportunity to maximise the proportion of parking over which it has influence with regard to the quantity of parking, as well as the setting of tariffs and conditions for the use of parking. The policies in the Parking Strategy should be based on a comprehensive approach to parking in the area concerned, and not focus on on- and off-street parking as though they were unrelated.

Separate policies will be needed, however, on certain aspects. For example, proposed car park refurbishment, or residents' parking schemes can be dealt with as discrete topics. But the context, and in particular polices regarding the supply of parking must relate to the entire parking stock, whether public or private, on- or off-street. In this way a strategy may involve a change in the total parking supply, and a shift in the proportion provided in the various types of parking. An illustration of good practice

Parking Policy in Groningen, Netherlands

Transport and planning policies were developed within the framework of two broad objectives for Groningen, namely to strengthen the economic and cultural role of the city within northeast Netherlands, and to make the city more "livable".

The main transport policy was to reduce car use, and to favour the use of cycling and public transport. Consistent with this, the parking policy for the city centre was designed to meet the objectives of:

- Good accessibility by non-car means of travel; and
- A high quality environment for those living in and visiting the centre.

The parking policy is based on an order of priority for different parking users:

1. Residents and disabled people
2. Short or medium stay visitors (shoppers and business visitors)
3. Long-stay visitors (commuters to work)

The policy is to remove parking that causes environmental problems or that takes up space that can be put to better use, for example for pedestrian activity, or for parking that is more important. The preferred type of parking in the central area where there is intense pedestrian activity is, therefore, off-street multi-storey rather than on-street parking.

Implementation was to be phased as shown in the table, resulting in the gradual conversion of street space for pedestrian and cycle priority use, including cycle parking.

Phase	Residents	Paid short-stay	Paid long-stay	Conversion of street space for pedestrians and cyclists
Before	Uncontrolled on-street plus paid off-street			None
Phase 1	On-street	On-street	Off-street	No extra
Phase 2	On-street	Off-street	Off-street	Some extra
Phase 3	Off-street	Off-street	Removed (Park-and-Ride only)	Maximum provision

applied to a particular town is given in the box above.

The Quality of Parking

Quality issues relate to location, level of service and design of parking facilities.

Location

At non-residential "destinations" the location of car parks affects the accessibility of an area in two ways:

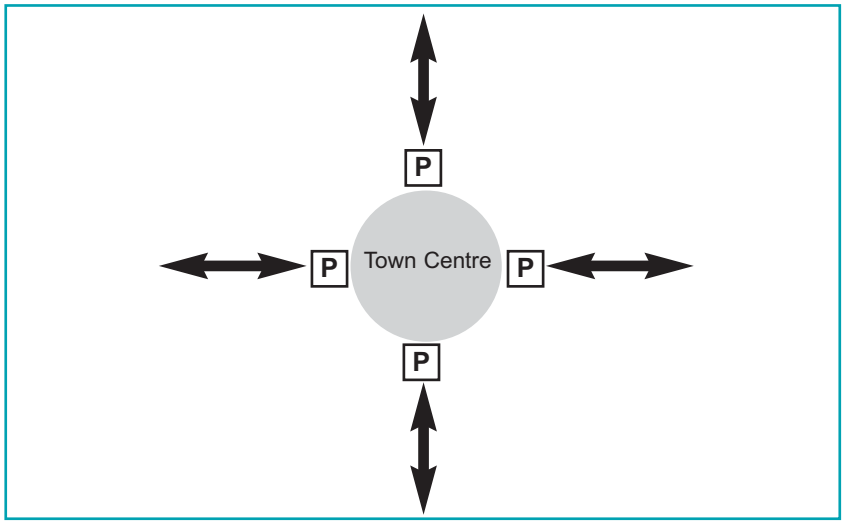


Figure 6.1 The "drive to, not through" principle.

- Its proximity to the road network that serves it affects the ease with which drivers can find it; and
- Once parked, the ease with which drivers and their passengers can reach their destination.

The location of car parking, therefore, affects its use and desirability, and hence its value and the prices that can be charged. In most town and city centres opportunities occur from time to time to change the location of public car parks. Whether planning the relocation or construction of a car park, consideration should be given to how to contribute to traffic and environmental objectives. Factors to be taken into account include:

- Car parks should be located directly off approach roads, to avoid the need for vehicles to drive into or through the centre (see Figure 6.1);
- The balance of advantage between a few large car parks, and the convenience of a larger number of smaller car parks;
- The potential to reduce or remove traffic from sensitive streets (for example for pedestrianisation) by relocating car parks, or their access points; and
- The possibility of giving preferential access to the town or city centre by public transport, for example allowing bus access through a High Street, and locating parking further away.

Special and different considerations may be required for mixed-use developments and the extent they are located away from town or city centres. For instance, the problems created by traffic exiting car parks at peak hours.

Parking and accessibility

For private developments, decisions on the location and type of new development, and the amount of parking associated with it, is an important

means whereby local authorities can influence the distribution and location of parking over time.

The requirement for parking levels should be determined within the context of maximum standards and assessed through the process of Transport Assessments, as outlined in Chapter 3. To assist in making these decisions, local authorities may find it helpful to draw up more detailed policies or protocols whereby the parking maxima can be related to overall accessibility of a site or area.

A number of local authorities have adopted maximum standards related to different zones. The parking allowed at the edge of the urban area tends to be more generous than in the centre, as the centre typically is more accessible by public transport. The aim is to avoid the need for detailed assessments of accessibility for each planning application. By drawing up zones of broadly similar accessibility by non-car modes of travel, the upper limit of the parking that will be allowed is clear at the start of the negotiating process. It is not, or at least should not be, a substitute for the negotiation of the lowest levels of parking that can be made to work.

If this approach is adopted, the differential between central and outer sites should not be excessive, as this would create a perverse incentive to develop in out of centre locations. The greater the difference in parking allowed between central and outer (or rural) locations, the greater will be the reliance on other land use planning policies to prevent development in locations which are reliant on car access.

A zoning system can be simple, as shown in Table 6.2, or relatively detailed to take into account different land uses, but the main task will be in identifying the boundaries between zones.

The maximum parking levels and zone boundaries will need to be adopted as policy. Decisions will need to take into account a range of factors that may include:

- The mode share or traffic reduction targets adopted, for both centres and generally;
- The strength of the economy and vitality of centres;
- The current levels of public and other parking provision; and
- Likely or potential changes to public transport accessibility.

It must be stressed that parking levels should be determined in relation to the type of development and its scale in line with land use planning policy. Transport Assessments merely act as the mechanism for ensuring that the development proposal will work in access terms, and that the level of parking provision is determined as an output of that process.

With increasing availability of transport data, and the application of geographical information systems (GIS), local authorities may be able to base decisions on more accurate accessibility data. However, for the sake of clarity and certainty for developers, it may still be useful to determine zones of similar accessibility.

There is an important balance to achieve, and requires that the problems of each area be considered independently, whilst remaining compatible. For

Table 6.2 Maximum parking standards – the zoning approach.

	Zone 1	Zone 2	Zone 3	Zone 4
Description of area	Regional town or city centre	Town centre or fringe of Zone 1	Suburbs and local centres	Peri-urban and rural areas
Public transport accessibility	High	Medium	Low	Marginal
Maximum specified in Regional Transport Strategy	20% of PPG13 maximum	50% of PPG13 maximum	60% of PPG13 maximum	80%
Local maximum parking level as % of regional maximum	0%	80%	90%	100%

Note: the percentages shown are hypothetical.

example, a town centre may require a balance of long-term off-street parking with short-stay on-street and off-street parking. Furthermore, access for deliveries, by disabled "Blue Badge Holders" and by bus and taxi to the core retail area will be required. A town centre scenario such as this will differ greatly to that of an outlying residential area with a problem of long stay on-street commuter parking, where a residents' parking scheme might be an appropriate solution.

Care will need to be taken in defining zones to ensure a balance between parking demand and available spaces is kept. Zones should not be so large that residents are able to drive long distances and park without restriction (as happens in some London Boroughs, for example); neither should they be so small as to make the system over complex. This final point is particularly important in short-stay areas where occasional visitors will be unfamiliar with the controls and should not be faced with a variety of zones or charges. Conversely, a complicated system of residents' zones would be more acceptable as their users are "captive" to a particular location.

In central areas, it is best to charge most and have shortest parking durations on the most accessible on-street spaces, with longer stays at lower prices in less popular areas and off-street. Lowest long-stay prices should be in the more peripheral off-street car parks.

Outer zone boundaries should not be located on roads with high density housing and high levels of on-street demand, but rather on wide suburban residential roads, preferably with off-street parking. Residents of such areas may be inclined to oppose having restrictions in their roads if they do not currently experience problems, but it must be explained to them that problems will occur when controls are introduced in adjacent areas due to displaced demand.

Displacement will occur if zones boundaries are too tightly drawn, and will become most apparent in and around the boundary roads. If residential demand for on-street parking is low in these roads (because adequate provision is available off street) they may be little conflict in terms of parking capacity, but residents may still feel aggrieved at the presence of non-residents' cars being parked outside their homes. Obstructive parking can frequently be managed by the introduction of advisory access protection lines (APL), but should problems persist mandatory restrictions can be introduced to control obstructive parking. An example is Canterbury City Council's PARC Plan that mitigated displacement effects in the most affected areas by introducing a further zone around the CPZ with some additional restrictions and un-timed marked bays on specific streets where displacement effects were being felt.

For further discussion of the zone approach, see the reference to the Government Office for the South East (4).

Parking for disabled people

"Shopmobility" schemes are designed to enable disabled drivers to park in town centres and make use of wheelchairs or scooters for access around the centre. Local authorities should ensure that there is a scheme operating in every large town centre. Details of the scheme and how it operates are on the Shopmobility website.

All developments should be planned to allow access for disabled people in accordance with Government Traffic Advisory leaflet TA 5/95 (5). This is based on unfettered parking demand. Despite improvements to public transport, many disabled people still require the private car. Suitable designated car parking and/or drop-offs are, therefore,

required. The Department for Transport document *Inclusive Mobility* provides further detailed guidance on car parking for disabled motorists and is available from the Department's Mobility & Inclusion Unit.

In principle a development should have at least one accessible car parking bay close by designated for use by disabled people. Development with associated car parking should have at least two parking bays for use by disabled people. The appropriate number of bays will depend on the size and nature of the development, in accordance with TA 5/95 (5).

Access for disabled people who are reliant on cars does not necessarily mean that a dedicated off-street space must be provided within the curtilage of each new development. Suitable spaces can be made available in bays off the carriageway adjacent to the scheme, and this can sometimes provide better access than dedicated bays in an off-street car park, from which access to the front door may be less convenient.

Freight and distribution

Lorry parking and loading should be considered in a comprehensive parking strategy. A balance has to be struck between the local needs of businesses, local circumstances and the priorities that should be given to different modes requiring parking. Parking restrictions exist to control the environmental impact of lorries in residential or other areas, while loading restrictions are usually used to control freight access to town centres during peak periods or daytime shopping hours. Such restrictions have to be compatible and still allow businesses to receive goods at appropriate times.

Overnight lorry parking bans can be applied in residential areas where problems are identified. Generally residents themselves can be relied upon to notify the local authority of lorry parking that is causing a nuisance. Common practice is to cover an entire local authority area with a ban, and to make exceptions where parking is permitted in suitable roads, for example on industrial estates. Increasingly, lorry bans are being applied not just overnight, but also all day Saturday and Sunday. Where blanket bans are proposed, it is clearly important to ensure that sufficient, suitable parking is available at allocated sites.

Alternatively, PPG13 suggests that the use of agreements on noise levels and the number of vehicles parked might offer another feasible solution.

In addition to local overnight lorry parking requirements, consideration should be given to strategic lorry parking requirements, particularly at locations close to advisory lorry routes, motorways, Trunk roads and ports. The provision of rest facilities is of increasing concern within the freight transport industry since the EU Directive on the organisation of working time for mobile workers in road transport came into force in March 2002. In the main the private sector provides for many of these requirements but 'non-commercial' needs will often remain.

The freight industry transports high value goods and a secure environment, for both staff and

Shopmobility direction signs.

Designated parking area and sign for motorcycles.

freight, needs to be considered when providing lorry parking facilities. The provision of driver meal facilities, secure rest stop and overnight facilities and facilities for vehicle washing, vehicle part sales and routine maintenance are key concerns of transport operators.

Coaches

The Parking Strategy may need to consider the impact of any proposed parking controls on coach operations, particularly in tourist and shopping/leisure centres. A policy may be needed to deal with the issue in a positive way, for example by earmarking a site for a coach parking facility. Further advice on coach parking facilities is given in Chapter 7.

Motorcycles

The term "powered two-wheelers" (PTW) covers mopeds as well as motorcycles. Travel by PTWs, depending on the relative occupancy rates and vehicle sizes, can use less fuel than cars and therefore produces less pollution and carbon dioxide. Roadspace can also be used more efficiently. The case for encouraging such use, however, is less than clear. First, PTW travel is more likely to be at the expense of public transport than the car. Second, crash and injury rates for PTWs are much higher than for other motorised modes, including those involving pedestrians.

Nevertheless, people with PTWs are legitimate road users who can rightly expect safe, secure and convenient parking. Local authorities should include policies in their Parking Strategy to ensure such provision, and to ensure that problems of PTW parking such as footway obstruction can be avoided.

The growth in ownership of smaller motorbikes has been particularly noticeable amongst commuters for accessing both urban areas and the rail network. Demand appears to reflect the cost and quality of other parts of the transport system and the need for PTW parking therefore needs to be addressed in that context. For example, the London congestion charging scheme provides an exemption for motorcycles and mopeds and consequently an increase in their modal share has occurred, together with an increase in the demand for motorcycle parking.

High density motorcycle parking (possibly just for the smaller types) can be provided at most prime locations such as railway stations to encourage modal interchange, enabling more sustainable rail-heading and door-to-door flexibility where public transport is not viable.

Bicycles

Cycle parking can be provided in response to known demand, but in many circumstances the provision of parking in itself triggers further demand. A Parking Strategy should set out policies and proposals for the following

- Provision by the local authority, for example at town and local centres and at key public transport stops;
- Location and design of cycle parking in relation to cycleways and carriageways, and footways;
- Provision in small clusters or large parking areas;
- Standards regarding the design of cycle parking stands, with more security required for long-term parking. Cycle theft is a known major deterrent to cycle use;

- Cycle parking in new dwellings (if cycling is to be encouraged, secure and convenient parking must be available at both ends of the trip;
- Any charges for secure cycle lockers or secure cycle parking at public car parks; and
- Description of any routine consultation arrangements with cycling interests.

The National Cycling Strategy identified cycle security as a key issue and sets out objectives of improving parking at major destinations, including town centres, shopping developments, educational establishments, hospitals and leisure facilities.

Planning policies should include minimum cycle parking standards for provision in new developments, together with appropriate polices on requirements for shower and changing facilities.

Further advice on the design of cycle parking is provided in Traffic Advisory Leaflet 6/99 (6).

Taxis

Taxi parking should be considered in a comprehensive parking strategy. Taxi ranks should be provided where there is likely to be a demand for their use. In establishing sites for taxi ranks, the local taxi drivers' association should be consulted, as they will be aware of the locations and times when demand arises. In some areas it may be appropriate to provide part-time taxi ranks, for example, close to places of entertainment late at night in locations that might be required for loading during the day. The Traffic Signs Regulations and General Directions (7) allow this.

The Local Authority should identify appropriate sites for taxi ranks at railway and bus stations, in shopping centres and close to places of entertainment. Prominent town centre locations, like market squares, should normally have taxi ranks. Historically telephones were provided at taxi ranks but, now that taxis are radio controlled or have mobile telephones, telephones on ranks are unnecessary.

London Borough of Croydon operate free secure cycle storage within a number multi-storey car parks, subject to a £5 key deposit, which is renewable monthly. This scheme has proved to be particularly successful amongst local commuters to the town centre.

Aberdeen City Council's Park–and–Ride scheme provides secure cycle parking, both lockers and "Sheffield" stands, at their staffed sites. Secure parking is provided free of charge with only the cost of the bus fare (£2) payable.

Environment and Street Design

Authorities should produce guidance on the integration of parking equipment (including signs, markings and machines) with the street environment. Too often the impact is disregarded and the result is unsightly street clutter, much of which can be avoided.

Although more exacting standards of design may be specified for town centres, and in conservation areas, there is a more general need to bring about streetscape designs that reflect functions other than just parking and traffic. The impact of the signing requirement of a Controlled Parking Zone (CPZ) upon the streetscape can be considerable, though perhaps less than might be required in the absence of the CPZ. The *Traffic Signs Regulations and General Directions* (7) specify the design of signs, rather than their location, except in those instances where certain markings have to be accompanied by certain signs and where entry signs are needed to a CPZ zone.

In especially sensitive historic environments, efforts should be made to minimise the use of signs and markings within a controlled zone, or to arrange their placement to minimise their

Cycle shelter and lockers Aberdeen.

In Manchester signs have been combined on buildings and street furniture in an effort to minimise clutter.

Integrated residential parking, Freiburg.

intrusiveness that is consistent with ensuring that drivers can understand what restrictions are in force. A distinction can also be drawn between Restricted Zones, where it is legitimate not to install a certain amount of signing and lining and CPZ or no zones where more signs and lines are likely to be required.

Design of residential parking places

Local authorities should ensure that any urban design guide for their area should outline guidance for residential parking. In addition, the Government in the form of “Better places to live” (8) has provided some advice on how to accommodate parking in residential areas. Further advice may be available from the ODPM

In Chichester city centre, West Sussex County Council has combined the entry signs to the Controlled Parking Zone with speed restriction signs in an attempt to minimise this problem.

research report into PPG3 and Highway Adoption procedures.

Thanks to encouragement by local authority and national urban design guidance, developers are increasingly departing from the suburban norm of two or more car spaces within the dwelling curtilage. Instead parking is accommodated in courtyards, basements or shared spaces on the street. Provided safety and security can be guaranteed, these methods allow either the provision of more useful amenity space, or building to higher densities, which in turn improves accessibility to public transport and other facilities.

Another option is to lease car parking spaces separately from the dwellings. This allows those who want a car to have a space but makes it cheaper for those who choose not to have a car to buy or rent a dwelling. Demand will generally be lower when this arrangement is used, and the overall provision can therefore be lowered.

In Buntingford, Hertfordshire there are parking regulations with signs only at entry to the controlled area.

On-street provision in residential areas

Residential parking is provided entirely on-street in many older areas. An adaptation of this method can be successful in new residential areas, provided that the on-street bays are well designed. “On-street” in this context does not mean “on-carriageway”, but refers to the provision of bays immediately adjacent to the carriageway, or defined within shared-surface areas as, for example, in Home Zones. The issue of how to sign parking in Home Zones within CPZs remains unresolved.

On-street parking bays can supply the entire parking demand in some circumstances, or can supplement off-street provision. It is useful especially to accommodate that portion of demand that is variable during the day and over time. This will result in a lower overall land-take (See Table 6.3). For example, an off-street communal parking area might provide 0.5 spaces per dwelling, while on-street bays might provide a further 0.5 spaces per dwelling.

The advantages of on-street provision include:

- Flexibility in meeting demand from both residents and visitors;
- Elimination of the need for footway crossovers;
- Passive surveillance from both residents and passers-by; and
- Lower land-take per parking space.

Further advice on how to provide sufficient on-street parking is set out in *Better places to live* (8).

Communal versus dedicated parking

Communal parking space makes more efficient use of space than does parking dedicated to individual dwellings. This is because car ownership rates vary between households and over time, due to different lifestyles, incomes, and progression through the life-cycle. If parking is dedicated, the spaces must be provided on the basis of maximum likely demand, for example two spaces per dwelling. With communal parking variations in household demand means that lower overall provision is required, as shown in the example in Table 6.3.

Table 6.3 Residential parking with dedicated or communal provision of spaces,

	Spaces required if provision at 2 dedicated spaces per dwelling	Demand Year 1 (Example)	Demand Year 3 (Example)	Surplus space Year 1	Surplus space Year 3	Spaces required if communally provided
Dwelling 1	2	2	2	0	0	-
Dwelling 2	2	1	2	1	0	-
Dwelling 3	2	2	1	0	1	-
Dwelling 4	2	2	2	0	0	-
Dwelling 5	2	0	1	2	1	-
Dwelling 6	2	1	0	1	2	-
Dwelling 7	2	1	1	1	1	-
Dwelling 8	2	2	2	0	0	-
Dwelling 9	2	3*	2	0*	0	-
Dwelling 10	2	0	1	2	0	-
Total	20	14	14	6	6	14 (30% saving)

** Demand cannot be met in dedicated space, but can be in communal space*

Landscaped spaces

Car parking can be visually intrusive in the street scene. Typically the intrusiveness is greater where:

- The space occupied by parked vehicles is a high proportion of the total space;
- The parking is accommodated in front of the building line (ie, in the front garden;
- There is an absence of mature trees or shrubs; and
- On-street parking is haphazard or unstructured.

In new residential developments these design issues can be addressed. In existing residential areas, intrusive parking can be avoided or ameliorated by the application of policies to:

- Introduce landscaping, especially the provision of street trees;
- Create parking bays, defined by footway build-outs and

trees or other soft landscaping; and

- Prevent the conversion of front gardens into hardstanding for vehicles.

Security

Vehicle security is a crucial concern for residents in some areas. Car owners, therefore, prefer to be able to park their car either in a space or garage attached to the dwelling, or in a gated or controlled car park. If only on-street parking is available, a space visible from the dwelling is preferred.

For mainly aesthetic reasons, parking is sometimes provided in parking or garage "courts" to the rear of dwellings. This design, however, can have major disadvantages including:

- Parking areas not overlooked are vulnerable to vandalism and other abuses;
- Parking underused because of fears about personal or vehicle security;
- Parking areas make it more difficult to secure rear gardens;
- Excessive space required in view of access requirements for both front and rear of dwellings, and connecting alleyways; and
- In car dependent areas street frontage is rarely used (the back door becomes the main entrance because people mostly arrive and depart by car).

However, *Better places to live* (8) and *Places, Streets and Movement* (9) set out how courtyard parking can work. Well-designed courts incorporate a limit to the number of spaces; they are well overlooked and there are parking places rather than car parks. The ODPM is working with the Home Office to produce guidance on "planning out" crime, which may include references to the appropriate security of vehicles.

Conversion of front gardens for parking

Local authorities should decide on a policy for the installation of footway crossovers, and for the conversion of garden areas to hard standing for vehicles. Some local authorities allow or even encourage such conversion for traffic reasons as a means of keeping cars off the carriageway, or as a means of increasing car parking capacity to meet expected demand, such as when a house is converted to flats. Residents are able in many instances to convert their front gardens into parking spaces without requiring planning permission. This is possible under Part 1F of the Town and Country Planning (Permitted Development Rights) Order 1995. However, under Article 4 of the 1995 Order local planning authorities may issue a Direction that requires that planning permission is needed. The Secretary of State approval of the Direction is required, except where the Direction relates to development within a conservation area.

The provision or otherwise of crossovers and off-street parking will have implications for the townscape and ecology, pedestrian safety and convenience, parking capacity, parking control, and the layout of bays within a residents' parking scheme. The Parking Strategy will therefore need to bring together these different considerations, if necessary by specifying the measures that should be applied in different streets or areas.

It is also important to recognise that, when on-street parking controls are introduced, this can lead to increased pressure from householders to convert their gardens to hard stands for parking. This may have serious consequences not only for the character and appearance of the street, but also for the efficiency of parking in the area. If parking supply is shifted from general public use (on-street) to

dedicated private use (off-street in garden areas), there will be less parking available for visitors to the area. This may be acceptable, such as to prevent "railheading" at railway stations, but could be a significant problem, if the viability of local shops and businesses is undermined. Moreover, dedicated private spaces are unable to respond to fluctuations in residential demand, and consequently can result in over-provision in some properties that is unable to compensate for under-provision in others. On-street or other collective provision can avoid this problem, and allows for a more efficient use of space. This is, however, not a simple issue and the views of residents need to be actively canvassed before decisions are finally taken.

Where the design of a parking control scheme protects access to properties by prohibiting parking (typically, with a single yellow line), a net gain can be achieved by allowing the conversion of gardens to hard stands only when the garden size is sufficient to allow for more than one parking space to be accessed from each crossover. The potential to make such a gain is greatest in suburban areas of semi-detached and detached houses, although in these areas off-street parking frequently already exists.

Alternatively, where advisory access protection lines (APLs) are used, a net gain can be achieved by allowing the conversion of gardens to hard stands when the garden width can accommodate one vehicle and the access protection line a second vehicle owned by the same household. The disadvantage of APLs is that they are not mandatory. Parking across them cannot be pursued as a parking offence – merely as an obstruction by the police.

In general there should be a presumption against the provision of footway crossovers and the conversion of gardens for parking. Exceptions should be made only where a clear benefit is identified that is judged to outweigh the disadvantages including:

- Conversion frequently does not lead to any net increase in parking capacity, and reduces parking for public use;
- Conversion increases the proportion of parking supply that is outside the reach of local authority control;
- Front gardens become unattractive parking spaces;
- The increase in "sealed" surface may damage the health of trees and plants;
- Frequent crossovers can seriously damage the appearance of the street;
- The absence of gates and boundary walls or hedges may increase the security risk in residential streets; and
- Frequent crossovers can be inconvenient, or even dangerous, for pedestrians.

Further discussion of this issue is contained in LPAC's guidance (10).

Regulation versus design

On-street parking controls and restrictions are applied to improve safety and regulate parking behaviour. This involves the use of signs and markings indicating the regulations, and an enforcement regime to encourage compliance of drivers with these regulations. In many circumstances the need for controls and their enforcement can be reduced by "designing out" the problem.

In places where parking is not wanted at any time, such as formal and informal pedestrian crossing places, junctions, access crossovers and bus stops, the footway and kerb can be re-aligned to prevent parking physically, or at least discourage it. Examples are given in Chapter 7.

Parking Control and Pricing

Policies and mechanisms are required that can be used for influencing who has access to parking space and when.

Entry signs to pedestrianised areas.

Formulating parking control schemes

Principles of on-street control

Many parts of our towns and cities were constructed before motor vehicles were commonplace, and these are often some of the most cherished urban environments. Such areas often have little provision for parking and servicing off-street and the highway has to be used for these purposes. Whilst there is a clear public interest in maintaining the vitality and viability of activities taking place in such areas, there is also a need to retain the public rights to the highway on behalf of the community as a whole.

Where businesses are using the public highway for commercial purposes, other than those sanctioned by law such as street markets, there is a need for control. Various activities, including repairing vehicles and advertising vehicles for sale, are prohibited on the highway. In granting car or lorry users the ability to stop on the highway, local authorities should bear in mind that other claims on the street space may be of equal or more deserving priority, such as space for walking or public amenity. A Parking Strategy should address this issue by setting out priorities.

In determining policies for the control of on-street parking and loading, authorities should bear in mind that there is no general right to park a vehicle on the public highway. There is a common law right to pass and re-pass along the highway and to use the highway for access to premises fronting the highway, but an unattended stationary vehicle is potentially a highway obstruction, unless local parking regulations deem otherwise.

The absence of any right to park on the highway has a direct bearing on the management of on-street parking. For example, the issue of a resident parking permit grants privilege to a part

of the highway that is denied to those not in possession of the permit. The provision of that privilege involves a cost in administering and enforcing the permit scheme. If the full cost of administration and enforcement is not met by the permit holder, this means that those who choose not to own a car, cannot afford to own a car, not eligible to apply for a permit, or pay to provide an off-street space for their car, are subsidising those who park on the public highway. The principle is, therefore, that charges for parking on the street (or highway) should be set at a level that covers all the costs of implementation, administration, enforcement and maintenance. Alternative off-street parking arrangements should be encouraged.

The need for Residents' Parking Schemes

Off-street parking provision is unusual in areas where the majority of the housing was constructed before the middle of the twentieth century. Most inner city areas and the centres of historic towns, therefore, have a problem with on-street parking of residents' cars. Rising household car ownership, together with the subdivision of larger houses into smaller flats has meant that the pressure on parking spaces in urban areas is intense and increasing.

Where demand for kerbside parking exceeds supply, parking controls should be introduced. In areas with a residential population these should make provision for residents with permits to park in designated bays. Where there are local shops or other facilities that attract visitors during the day, such bays can be shared with visitors' cars with a pay-and-display ticket.

Residents' parking schemes are sometimes necessary to prevent parking by commuters, particularly close to stations in predominately residential areas. In order to reduce the inconvenience to visitors in these areas regulations are sometimes introduced that restrict parking to residents for a short period, typically one hour, during the day.

Designated residential parking bays.

Further details about residents' permits appear in Chapter 7.

Loading for business premises

In many areas business premises, particularly shops and restaurants, have no off-street loading. Servicing, therefore, has to take place on-street. Many of these are small businesses, and are located in urban centres and along main roads in suburban areas. Government policy, as expressed through Planning Policy Guidance and the Urban White Paper, is that such businesses should be assisted as they provide important local services and assist in the vitality and viability of town centres.

Loading is a legitimate use of street space, necessary for the economic and other activities alongside, and may also be regarded as one of the elements that create an interesting and diverse street scene. There are limits, however, to the amount of such activity that can be integrated successfully with pedestrian and vehicle movement, and be acceptable from an aesthetic point of view. It is for these reasons that control over loading activity is often required.

On-street loading signs.

Local authorities should plan for on-street loading activity taking account of the following:

- Where traffic flow is heavy, it may be appropriate to restrict parking throughout the working day, but permit loading between peak hours;
- Parking restrictions should be properly enforced to ensure that kerbside space is available for loading purposes during control hours; and
- Where parking is permitted on-street, this should be located away from loading areas, bearing in mind that loading space needs to be as close as possible to the premises being served, and on the same side of the street. There should therefore be generous areas of kerbside normally available for loading during the relevant period.

Balancing the benefits – Red Routes

The relationship between parking and traffic is important and points to the need for policies and proposals that address all the legitimate concerns in the street. A good example of this being attempted is presented by the Red Route scheme in London.

The Red Route restrictions were first introduced in London in 1991. They focused parking controls and their enforcement on critical areas, rather than undifferentiated controls along lengths of urban highway, as was the case with the former peak-hour "clearway" restrictions.

The aim was to make the most efficient use of road space on main roads, taking account of all road users, not just general vehicular traffic. The management of kerbside space was related to the particular demands on space at each point along the route. Buses and the safety and convenience of pedestrians and cyclists were given high priority.

The Red Routes have been judged to be successful on a range of criteria, including benefits to frontage traders (11). As a consequence Edinburgh introduced a similar scheme (Green Routes) and other major cities are considering doing the same.

Some examples of the benefits are:

- Parking bays available where these do not impede peak hour traffic movement;
- Legal provision for short stay parking and loading;
- Carriageway widths reduced at pedestrian crossing points, and parking bays

On-street loading bays.

Red Route Clearway sign.

Red Route signs.

created in the "stopped" lanes; and

- Raised carriageways and kerb build-outs at side road junctions, greatly improving pedestrian convenience and safety.

Local authorities outside London could consider how they can achieve the benefits of the Red Route approach through the application of parking and loading TROs, combined with appropriate re-design and re-allocation of main road space. Such an approach may be particularly relevant on main roads where buses are impeded by loading and parking activity of frontage businesses.

Tariffs and pricing

The tariff and pricing policy can be used to address a number of objectives. The most common are:

- Balancing demand with supply;
- Influencing the demand as between on- and off-street car parking;
- Influencing the distribution of demand as between different areas;
- Influencing the length of stay and parking turnover; and
- Maximising revenue.

It is axiomatic that, if a Parking Strategy includes a policy to reduce or limit the supply of parking, then parking charges and tariff conditions will be more stringent than they would otherwise be. This presents a considerable challenge for local authorities where people have become accustomed to free or unrestricted parking.

The ability to use tariffs and charges to achieve policy ends will depend on the amount of control that can be exercised by the local authority. For example, local authority car parks may be managed to discourage commuters; car parks owned and operated by private companies will have tariffs to maximise revenue, which may encourage all day parking, unless there are planning conditions or restrictive covenants that prevent them.

It is important that the tariff structure includes both on-street and off-street parking. A Parking Strategy should address the issue of whether parking is to be encouraged on the street or in off-street car parks, and the tariff structure is a key measure for achieving this objective. The actual structure will depend on circumstances, as in the following examples:

- Where off-street car parks have provision for shoppers, the on-street tariff might be set to attract those staying for very short periods, for example by setting a maximum stay of one hour. This makes parking easier for those who only wish to stay a few minutes and reduces congestion in the accesses and circulation areas of the off-street car parks; and
- Where off-street car parks are under-used, and there are plans to create higher quality public realm through the expansion of space available for pedestrian and related activity, the tariff could include higher charges for on-street parking than for the off-street parking. This will reduce on-street parking demand, enabling the

conversion of parking space to other more beneficial use, and at the same time will ensure better use of the off-street facility.

In areas with a two-tier local government system this will require agreement between the county and district council. Where private companies control car parks, the local authority may not wish to dictate the tariff strategy, although powers exist under the Road Traffic Regulation Act 1984. In some cases the authority has influence as ground landlord but may only be able to introduce control over tariffs when the lease is due for renewal. For new or expanded public car parks that are privately owned the planning consent should be conditioned, or a planning contributions agreement concluded, to ensure that tariffs comply with the policy objectives for parking in the locality.

How to set tariffs is covered in Chapter 7.

Further policy considerations

Other policies and measures that should be considered include:

- Encouraging or discouraging certain types of user in line with policy. For example, higher charges for short stay parking will tend to discourage car journeys by people who live within walking distance, while higher charges for long stay parking discourage all-day car commuters who have access to public transport alternatives;
- Securing an appropriate balance between on-street and off-street car park use. It will generally be desirable to ensure that expensive off-street car parks are well used, and the on-street charges can be set higher in order to achieve that. Alternatively, some on-street spaces can be removed, for example to secure more space for walking and enjoyment; and
- Securing comparable charge levels between different car parks, including those that are privately operated.

Discouraging car commuting

It is common practice in town and city centres to use parking charges as a means of reducing the demand for all-day commuter traffic but attracting shoppers and visitors and supporting the evening activities. There are both advantages and disadvantages to this approach and careful analysis should be undertaken before policy decisions are made.

Benefits

- Encouraging the use of parking by people who contribute to the local economy (ie, spend money in the centre); and
- Discouraging travel to and from the centre at morning and evening peak times, thus limiting congestion on roads leading to and from the centre.

Disbenefits

- People wanting to visit the centre all day, for example combining leisure activity with shopping, will be discouraged, although park-and-ride may provide an alternative;
- Displacement of commuters onto public transport will increase the pressure on capacity at the busiest times, thus increasing overcrowding, or increasing costs if extra services are provided;
- Encouragement of short-stay visitor parking may reduce demand for and hence revenue from, public transport at inter-peak times. This will further reduce the viability of public transport;
- Shifting use from long stay to short stay use will, other things being equal, result in more car trips to and from the centre, thus increasing

the number of vehicles using the roads to and from the centre. This may not necessarily result in an increase in total vehicle kilometres driven (this will depend on how far people travel from) but it will certainly increase traffic in and near the centre; and

- Reducing long stay opportunities in the centre may create difficulties for residents without their own parking space. This may undermine any policy to increase town centre living. Residents may therefore need opportunities to purchase permits, either for on-street bays or for space in off-street car parks.

Whatever the balance of advantage in any particular situation, it is clear that setting charges and regulations to shift from long to short stay use should not be undertaken without careful analysis and consultation.

The setting of low charges in order to gain a competitive advantage over neighbouring authorities is not normally supported, although it is widely practised. Such actions may result in over-use of car parks (causing congestion and searching traffic at peak times), and also lead to unnecessary traffic generation by people travelling from longer distances. If there is ample space to accommodate demand at a low price, then it is likely that the true costs of provision will not be met, contrary to good auditing practice. The Regional Transport Strategies should address this issue with local authorities following their guidance.

Provision of free parking

In some smaller towns and villages public car parks are provided without charge. In some cases this may simply reflect demand that is too low or occasional to warrant a charge and its associated costs. In other cases it may be a deliberate policy not to deter car-borne visitors.

Free car parking signs.

Demand at tourist and rural destinations may be at a level where free parking may no longer be appropriate. Acceptance of the introduction of charges may be higher if revenues are used for public transport or environmental improvements, especially where, by removing or relocating obtrusive parking and access roads, the attractions are improved. Such schemes may not always be possible for the local authority, and may, therefore, depend on private initiative, but this can be promoted through joint working.

The Council may consider that the benefits to a local economy, and the safety advantages of providing for parking off the highway, justify the public expenditure involved in providing free parking. In some cases it may also be disproportionately costly to provide equipment and staffing for collecting payment, when the revenue will be small.

In small market towns some authorities make charges only on market days.

Where local authorities provide free off-street car parking they should be conscious that costs are still being incurred in maintenance, cleaning, rates and the opportunity cost of the site. They are therefore subsidising the users of the car parks and should consider whether this is the best use of their funds.

Alternatively it could be said that the Council Taxpayers are subsidising retailers and other businesses, and the council may wish to seek contributions from these beneficiaries towards the costs if the car parks are to remain free to the users. Out-of-town retailers and supermarkets usually provide customer car parks, and therefore carry these costs themselves. Arrangements for retailers to rebate charges to their customers can be made by agreement between the trader concerned and the council and ticketing systems introduced to allow for this.

Quotes from Best Value report on a south coast authority providing free parking:

"The Council needs to look again at charging, as the costs fall on all taxpayers and not just those who use the car parks.

Councillors have pursued a policy of free parking because of the perception that it is necessary for the viability of town centre shops. Free parking is also thought to prevent loss of trade to other shopping areas... but we found no clear evidence to support these assumptions.

"The Council has also failed to challenge why the service is free. There was no evidence to demonstrate that the cost to the borough of around £200,000 represented best value."

(Audit Commission report, 2002).

The District Auditor will wish to see that the council is securing an appropriate level of income and Best Value from car parking operations. Therefore clear policy objectives will need to be agreed if the tariff results in less than the maximum achievable revenue.

Management of Parking (Protocols)

Since the operation of parking services has a direct influence on matters of policy, a business plan should be contained within, or be consistent with the Parking Strategy. More detail about the preparation of a business plan for parking is given in Chapter 10.

Enforcement of Parking Control Schemes

The Parking Strategy should set out the mechanisms whereby Parking Control schemes will be adequately enforced. Local Authorities should also set out their programme for decriminalised enforcement or alternatively satisfy themselves that the police have sufficient resources. Further details about enforcement matters are covered in Chapter 9.

References

(1) Parkhurst, G, 2002, Bibliography of park-and-ride references, ESRC Transport Studies Unit, University College, London.

(2) Apel, D *et al*, 1997, Kompact, mobil, urban: Stadtentwicklungskonzepte zur Verhehrsvermeidung im internationalen Vergleich, DIFU, Berlin.

(3) Government Office for London and the London Planning Advisory Committee, 1997, Sustainable Residential Quality (SRQ), LPAC, London.

(4) Government Office for the South East, 1998, Parking Standards in the South East, Llewelyn-Davies.

(5) Department for Transport, 1995, Parking for Disabled People, Traffic Advisory Leaflet 5/95.

(6) Traffic Advisory Leaflet 6/99: Cycle Parking.

(7) Department for Transport, 1994 (or subsequent revision), The Traffic Signs Regulations and General Directions (TSRGD).

(8) DETR/CABE, 2000, By Design: Urban design in the planning system: towards

better practice and DTLR/CABE, 2001, Better places to live: By design.

(9) DETR, 1998, Places, Streets and Movement a companion guide to design Bulletin 32, Residential Roads and Footpaths.

(10) London Planning Advisory Committee, 1994, The Quality of London's Residential Environment.

(11) Traffic Director for London, 1997, Red Routes and Retailing – Results of the 1996 surveys, London.

Department for Transport, Traffic Advisory Leaflet 2/02: Motorcycle Parking.

Pharaoh, T, The Motor Car: Idol or Idle? A survey of redundancy in domestic car fleets in Traffic Engineering & Control, February 1986.

Shopmobility website as at 2002: (www.justmobility.co.uk/shop).

Section 3
Implementation

Section 3
Implementation

Chapter 7
Delivery of Schemes

Introduction

At a seminar held in 2003 about parking strategies and management, delegates were asked about what they considered to be the significant barriers to the implementation of effective parking management (1). The response revealed the following:

Major barriers were:

- Lack of political will locally
- Public opposition to specific proposals;
- Public opposition to the use of parking for wider policy objectives;
- Lack of priority in local authority budgets; and
- Lack of sufficient staff in local authorities.

Minor barriers were:

- Professional opposition to use of parking for wider policy objectives;
- Inadequate/inappropriate delivery structures in local authorities;
- Difficulty in securing cross border/regional planning;
- Lack of investment by the private sector; and
- Lack of appropriate skills and expertise in local authorities.

Other barriers were mentioned, but it is how to overcome or at least soften these above-named barriers that this and subsequent chapters attempt to offer guidance. In particular it deals with the many practical considerations that must be taken into account by designers, planners, engineers and managers involved with the various aspects of parking.

For convenience, this chapter looks at off-street parking first, followed by on-street parking control and management. However, some aspects such as tariff setting should be pursued for on- and off-street parking together.

Public off-street car parking

There are three elements to off-street parking:

- The quantity of provision and its distribution between different categories of user;
- The pricing and controls applied; and
- The management of parking and the revenues derived from it.

The supply of parking can be adjusted over time in response to policy decisions and targets for accessibility and mode share. Whatever the quantity at any particular time, the demand for it will be influenced by the prices charged. Tariff setting is, therefore, of crucial importance in achieving both the Strategy and other objectives.

Tariff setting and review

In setting parking charge levels factors that should be taken into account include:

- Price elasticity of parking demand;
- Competition between areas; and
- Incentives for the use of off-street parking.

The price of parking can be set to influence parking activity in order to serve policy objectives. The level and structure of prices can influence:

- The level of usage, and hence the traffic generated;
- The type of user, and
- The length of stay.

The pricing of parking facilities is one way of directly affecting the cost of car journeys relative to other modes. Ideally the price of public and private transport modes should be coordinated in order to achieve mode split objectives, but this is difficult though not impossible where public transport is deregulated and privatised.

Pricing levels also can be set in order to:

- Secure sufficient income to cover the cost of operating, maintaining and enforcing car parking facilities;
- Raise general income, though this practice is not generally supported in Government guidance;
- Raise income for the improvement of parking and other transport facilities; or
- Maximise revenue, as is often the case with privately owned public car parks where there is no local authority control. (See also Chapter 10.)

These pricing objectives may conflict with one another and with other local transport planning objectives. However, in setting tariffs at public car parks, it is good practice to set them at a level such that 10 - 15% of the space is free at peak times. This means that drivers will always have a high expectation that parking space will be available. Some local authorities may be tempted to resist higher charges for fear of losing customers, but this should be avoided. Both supply and demand issues must be resolved. The price of parking should support the policy, not constitute the policy.

Matching demand to supply through price is good practice from an operational as well as a policy standpoint. It means that:

- The car park aisles do not become congested with cars seeking spaces;
- Queues building up on the highway due to shortage of space are avoided; and
- Revenue is maximised within the established parameters for tariff setting (eg, a policy decision to favour short stay up to four hours). If charges are lower, then revenue is foregone as some customers cannot park, or have to wait for long periods.

Of course, demand can be lowered further still by charging more than needed to achieve 10 - 15% vacant spaces at peak times. In this case the car park will not be fully used, which may be useful as a tactic prior to a reduction of parking supply, for example by keeping off-street spaces in reserve for when an on-street control scheme is introduced.

Peak-time pricing can lead to unintended under-use at other times. Some tariffs can be flexible to encourage off-peak use and hence balance demand through the day and week. Special consideration may be required for evening parking charges when the customers are restaurant or theatre visitors. Parking capacity at these times may be abundant and hence a cheaper rate to encourage their use makes good business sense. Providing cheap overnight parking also makes good business sense whilst also supporting the move towards a more urban lifestyle. Residents' parking should be available 24

hours a day, otherwise residents may be compelled to drive out of the area each day to avoid restrictions or charges. Similar considerations apply to parking for hotel guests.

Tariff graduation

For shopping and town centre car parks a typical fee structure (at 2002 prices) in a provincial town with a sub-regional shopping catchment might be:

Duration	Fee
Up to 2 hours	£1.20
2-3 hours	£1.80
3-4 hours	£2.40
4-5 hours	£3.60
5-6 hours	£5.00
Up to 10 hours	£7.50

This structure reflects a policy of discouraging parking longer than four hours, which equates to allowing plenty of time for shopping and related activity, discouraging regular all-day users (commuters), whilst not preventing long stays when users judge that the advantage outweighs the price.

Such a tariff might be combined with a 60 pence for one-hour only (10p for 10 minutes) tariff at on-street meters. In that way the very short stay parkers would be encouraged to park on-street.

In the example quoted the off-street car park tariff provides a level fee of 60 pence/hour up to four hours, which should be sufficient for shopping trips. It then increases at an accelerating rate to a level that is designed to deter regular commuting to work by car. If the £7.50 tariff were to be introduced from four hours this could cause resentment, if a shopper had stayed for a short period over four hours. As lost tickets have to be charged at the full-day rate, an excessively high price could also cause difficulties with drivers who genuinely have lost their tickets.

In larger cities the charges would be expected to be higher, and in small towns they would be lower. In central London in 2002 meter charges were as high as £4/hr and off-street charges were as high as £45/day. In a small market town a tariff of 20p/hr was typical with a maximum daily charge of £2 or £3. The difference reflects the relative demand, which in turn reflects the attractive power of the centre, and the availability of alternative facilities where parking might be cheaper or free.

Where demand is strong and charges are high, consideration should be given to smaller charge increments, for example half or one hour increments. This avoids the resentment felt by users who inadvertently stay just a few minutes over time into the next charge band.

What is important is that the tariff should be policy and price sensitive and graduated at an appropriate accelerating rate. A great many of enforcement problems and arguments can be avoided by setting charges in time bands that match what parkers typically do. Thus in a small town centre where 90% of visitors are going to spend less than an hour shopping the tariff should reflect this. Similarly a car park next to a cinema where the total programme runs for about two hours a three-hour tariff step allows the customer to buy a period of time that comfortably encompasses their stay.

Co-ordination of charges

Local authorities should co-operate with adjacent authorities in setting tariffs so that charges in comparable centres are similar, and should refrain from undercutting neighbouring towns as this is likely to distort the choice of town centre for some shoppers and to increase trip lengths. It is also likely to result in less revenue for the authority. Tariffs can also be set for different centres within the same authority. For example, in Brighton and Hove, charges are higher in Brighton town centre than in Hove to reflect the different “offer” of activities and consequent demand for parking.

Tariff reviews

Because things change, there needs to be reviews, both in response to particular events or circumstances and at regular intervals, say three years.

Ticketing and Payment Systems

Various ticketing and payment systems can be used in off-street car parks. These include:

- Pay-and-display;
- Pay-on-entry;
- Pay-on-foot (prior to returning to the car);
- Pay-on-exit (attendant or machine); and
- Pre-payment (using vouchers or cards or reference numbers).

For small surface car parks ***pay-and-display*** will usually be the most appropriate method. The motorist purchases a ticket once the car has been parked and displays it inside the windscreen. The local authority has to employ attendants, either directly or through a contractor, who visit the car parks and issue penalty or excess charge notices to vehicles not displaying a valid ticket. This avoids the need for a permanent presence in the car park, but does require administrative systems to pursue those who do not pay. In areas where parking enforcement has been decriminalised, the Special Parking Area and its administration can cover the off-street parking places as well.

In some circumstances (for example where charges are high) drivers leaving the car park may pass on their tickets to others to make use of unexpired time. This may result in some loss of potential revenue and can be tackled by using pay-and-display equipment that requires the driver to enter the numerals of the registration plate. With the recent change in the registration number system, it will be necessary to modify the equipment to cater for alphanumeric characters. This facility is likely to be made available on new machines.

One advantage of pay-and-display is that entry barriers can be avoided. In large town centre car parks, however, entry barriers may still be required to limit congestion within the car park. In this case, account must be taken of the potential for queuing on the highway and consequent unwanted impacts.

The advantages of pay-and-display are:

- Easy, low cost management and enforcement;
- Elimination of barriers and permanent staff presence; and
- Ease of understanding and use.

The disadvantages of pay-and-display are:

- It requires the user to commit to a maximum length of stay;
- Unused time has to be paid for; and
- It requires users to find the pay machine and return to car to display ticket.

Where surface car parks have a fixed daily tariff, such as some coastal car parks, station car parks and park-and-ride car parks, ***pay-on-entry*** is possible. “Flap plates” that can be driven over in one direction only are required at the exit to prevent access via the exit road. The avoidance of chasing up penalties can reduce costs but most local authority operators have changed to pay-and-display for the greater flexibility it provides.

For town centre car parks in particular, ***pay-on-foot*** has a number of advantages:

- Users are free to decide their length of stay;
- Users do not have to find the machine and then return to their car to display the ticket;
- Users may spend more time (and money) in the town if they do not have to return to their car by a particular time; and
- Users can pay when they leave, which can be more

convenient if cash is used. Card payment is just as convenient before as after.

Although equipment costs are higher, many operators now favour this method of payment as exit delays are minimised. It is also suitable for credit card transactions and, therefore, attractive for higher value transactions. It is desirable to avoid cash payments to attendants for fraud control reasons, and to minimise administrative and banking costs. Where tariffs are high, such as at airports and in central London, it is sometimes necessary to provide an attendant payment option in pay-on-foot car parks.

Some car parks (often at airports) photo-record the approaching car at the barrier. This enables records to be kept including a photograph of the driver, thus improving security and reducing theft. This system is also being used in some private car parks to restrict access to controlled areas (eg, Boots in Nottingham and private car parks at Gatwick Airport). Car registration numbers are photographically recorded, converted into recognisable number plates and then checked against approved lists.

Car park quality can also be enhanced through the provision of spacious lobby areas where the pay machine and other facilities can be located. Credit and debit card payments should be made available.

The disadvantage of pay-on-foot compared to pay-and-display is that an entry and exit barrier must be provided in addition to the ticket machine.

Pay-on-exit usually requires exit barriers and staff during hours of operation, but in most multi-storey and underground car parks staff will be required anyway for security reasons. In general, car parks with attendants in booths taking the fees at the exit have been re-equipped for pay-on-foot or pay-machine-at-exit. This frees the staff for security and customer assistance duties and reduces the opportunities for fraud.

Pay-machine-on-exit is effective only where there are adequate exit lanes, as a customer without change can block a lane while they seek assistance. Where there are a high proportion of foreign (left hand drive) cars, such as near the Channel ports, it may be worth installing machines on both sides of each lane. This also enables passengers to operate the machine.

Pre-payment may be especially convenient for long-stay parking when the trip is planned in advance, such as at airports. Pre-payment may be suitable also for regular parking activities, such as residents' parking permits and commuter season tickets.

Season tickets are available in many car parks. In pay-and-display car parks this requires a permit to be displayed in the vehicle. In barrier controlled car parks it is normal to issue a card that operates the barrier. Care must be taken to ensure that fraud abuses are minimised from the use of season tickets. Permits displayed in vehicles are sometimes forged by colour photocopying, and, although the colour fades in time, they can be difficult to detect. Permits should, therefore, be security printed in a way that prevents the easier forms of abuse. Most card tickets have an anti pass-back device that requires it to be used for entrances and exits alternately, and this prevents a driver passing it back to a friend in the car behind. However, if cards get into the hands of attendants they can use them to let people in and out for cash payments.

Motorcycles

Government guidance requires local transport authorities to "take account of the needs of motorcyclists". Spaces for motorcycles should be provided in off-street car parks, for example, to assist in providing

security, or to avoid parking on the street where it may be intrusive.

Where car parks are barrier controlled it is desirable that motorcycle parking areas are outside the area controlled by the barriers. This is because motorcycles can often avoid the barriers.

Motorcycles cannot be charged using conventional pay-and-display. One way of overcoming this is for the motorcyclist to enter the number of the bay in which the motorcycle is parked, which is stored in a memory in the machine. The parking attendant can then interrogate the machine to check which bays have a valid payment recorded.

Free motorcycle parking can be provided, if the small number of users makes charge collection uneconomic, or if, as a matter of policy, it is decided to encourage motorcycle use.

Audit and Fraud Prevention

There is a high risk of fraudulent activity in car parks and it is essential that an authority has a comprehensive plan to prevent it occurring, and to detect dishonest employees. This will involve having good audit trails in place, and possibly under-cover work where fraud is suspected, for example following complaints from users.

Major private operators have their own security departments to detect fraud, but some frauds, like shortchanging, are perpetrated on the motorist and not the car park owner. If the customer realises afterwards they have been defrauded they are unlikely to complain, as the sums involved are small and they may not be certain of the facts. Any car park operator should, therefore, mount special investigations to detect fraud on customers as well appropriation of car park revenues. No system should depend on the honesty of a single individual, whatever their position or experience, and audit controls should ensure that any cash handling, including offsite cash counting by security companies, can be reconciled against records from the payment equipment.

Car park operators bidding for management contracts are often concerned to keep tender prices low, as that is normally the main determinant of the contract award. In considering contract tenders car park owners should therefore consider the fraud controls proposed by the tenderers and whether the wage rates proposed can attract and retain honest staff as part of their tender appraisal.

For reasons of security it is not appropriate to describe here the wide variety of frauds that take place in car parks. However, operators should be aware of the risks and take appropriate advice and maintain continual vigilance.

To tackle problems of fraud local authorities and car park operators need to:

- Recognise and identify the potential for fraud;
- Introduce suitable measures to prevent fraud, including staff training and awareness programmes;
- Maintain vigilance in detecting fraud; and
- Establish procedures for eradicating fraud when it is detected.

Security in Car Parks

Security in car parks is a major concern, both for the personal security of users and the prevention of theft or damage to cars and their contents. Improvements in security can show impressive results and lead to additional revenue, as motorists are more likely to park in a car park in which they feel safe.

The Association of Chief Police Officers, in association with the British Parking Association and the Home Office, run the Secured Car Park Award Scheme (2). Car parks that have been upgraded to meet the standards for the Award have in

some cases shown reductions of over 80% in reported crime.

The scheme evaluates surveillance, boundary treatment, lighting, vehicular access, the parking area, pedestrian access, security, signage, and management practice. Details are available from the British Parking Association.

When new car parks are being built, or old ones are refurbished, the security measures should be considered carefully at design stage. The local police crime prevention design advisor or architectural liaison officer and the regional development manager for the secured car park scheme should be consulted before the design is finalised. Further advice can be obtained from the Institution of Structural Engineers (3).

Security is particularly important at park-and-ride car parks as criminals can easily observe that a driver is boarding a bus or train and likely to be away for some time. Full CCTV coverage and regular patrols are, therefore, necessary, while an operational policy of always having a bus waiting by the car park also helps.

The potential threat of terrorist action needs also to be considered in designing appropriate security systems.

Generally speaking, security measures are relevant for both personal and vehicle security, although the presence of personnel may be perceived by users as particularly reassuring in terms of risks of personal attacks. Other security measures include:

- Lighting;
- Design of access ways;
- Layout of parking bays;
- CCTV; and
- Personnel presence.

Shopmobility

Shopmobility is a scheme that lends manual and powered wheelchairs and powered scooters to members of the public with limited mobility, to help them to shop and use the leisure and commercial facilities of the town, city centre or shopping centre. The National Federation of Shopmobility by 2002 had registered 224 schemes in England, 18 in Scotland, 11 in Wales, and 8 in Northern Ireland.

Schemes are mostly but not exclusively designed for use by people arriving in town or city centres by car. (A scheme in Fort William serves people arriving by bus and rail, and is sited between the two stations.) It is, therefore, appropriate for them to be sited within a public car park. The operating base should be close to, and on the same level as, reserved parking bays for disabled people. It must be staffed during operational hours, using either full or part-time staff, and often involving the use of volunteers. To help meet operating costs, charges can be applied either for the car parking, or for the equipment hire, or both.

Good information should be made available on the Internet and through local council offices and disability groups.

Park-and-Ride

The issue of when to introduce park-and-ride is considered in Chapter 6. Implementation of such facilities revolves around location; information; and supporting public transport services.

1. Location

Authorities wishing to locate park-and-ride car parks on the edge of a town or city often have no choice but to locate them in Green Belt or other protected landscape. PPG13 has an annex on the issues to be considered in such cases. Sometimes the car park has to be located in an area belonging to a different authority, and this can complicate the planning issues and funding.

2. Information

Signing is equally if not more important for park-and-ride than for other car parks, especially if they are to attract users who are unfamiliar with the town, such as tourists. It is necessary for the sign to indicate not only the location and entry point of the car park, but also the frequency of service, the price, and the hours and days of operation. This can best be achieved by providing a lay-by in advance of the park-and-ride turn off, where information on all aspects of travel into the town or city centre is displayed. In turn this will require some advance warning that the information in the lay-by is ahead. Currently there are no prescribed signs for this in the Traffic Signs Regulations (4) so it would need special authorization. It is also important for the bus stop for the return service to be clearly marked, and visible from the arrival bus stop. Park-and-ride information should be made available on tourist leaflets and through the Internet. Some park-and-ride services allow pre-booking via the Internet.

3. Public transport services

For successful bus-based park-and-ride, frequent services are essential and most have service intervals of 10 minutes or less at peak periods and 15 minutes or less at other times. If a bus is always waiting at the car park, travellers have confidence that there will only be a short wait. Driver's rest periods are normally taken at the car park, often scheduled so that there is always a bus waiting. There are obvious security benefits to this arrangement as well. The payment structure often includes the parking fee in the bus fare or vice versa to simplify payment and marketing.

Pay-and-display or pay-on-entry are the preferred methods of payment as exit barriers can cause congestion if a large number of passengers alight from a single train or bus and seek to exit the car park at the same time. For parking at stations, differential tariffs between car parks on the same line can encourage travellers to maximise the length of the trip that is made by train, and minimise the distance driven.

Private off-street parking

Some private car parks, such as those attached to supermarkets available for public use, are part of the public parking stock and consequently charges and controls should be coordinated. Local authorities should liaise with the owners or operators of any such car parking to see that charges are in line with those for publicly operated car parks. It may be acceptable for the owner or operator to provide concessions for their own customers, for example by refunding charges.

Implementation will involve decisions on the amount of parking to be provided in new developments (see Chapter 6), but may also involve mechanisms or protocols to influence either the supply of or demand for existing private parking. These may include the provision of incentives or encouragements to owners of private parking to reduce the quantity of spaces, or to make more efficient use of spaces. One such mechanism is the Workplace Parking Levy.

The Department for Transport has set up a "charging partnership" of those authorities interested in workplace parking levies and road user charges in order to exchange information and experience. Durham had implemented a small road user charging scheme, while a larger scheme was introduced in February 2003 in central London. A number of other authorities had considered one or both of these charging methods, but in some cases commitment to them has been reversed or has waned. Only Nottingham City Council is currently pursuing an interest in a work place levy scheme.

A common public and political view is that better public transport services must be provided prior to the implementation of workplace parking levies or other measures designed to reduce the demand for car travel. This will be difficult to implement, however, since more priority and space for buses requires the reduced traffic levels that will not occur until the charging scheme is introduced. Overcoming this chicken-and-egg situation requires both technical skill and strong political will. On the technical side, the relative quantities involved should be calculated. For example, the total peak-hour car trips deterred by a workplace parking levy (assuming that the costs of the levy are in some way passed on to the user) can be compared with the capacity of public transport services available. The likelihood of walking or cycling being used instead should also be assessed.

If a local authority wishes to implement a workplace parking levy or road user charge scheme, it will need to address some practical issues of implementation:

- The levy is designed to apply to the use and purpose of the trip rather than the space. Procedures will, therefore, need to be established to differentiate between trips being made as a commuter or in the course of business, and other trips;
- The levy is paid by the provider of the space based on the maximum number of work based vehicles likely to park on the site, and it will be necessary to establish and enforce a particular number;
- If there is a likelihood of commuter cars migrating to surrounding streets, on-street parking controls may be required to deal with any resulting problems;
- The levy will need to be applied throughout an urban area. If only the centre is included, there will need to be strong planning measures to counteract pressure for out-of-centre development;
- Enforcement procedures will need to be established. For example, parking attendants may need to be given right of entry to private premises;
- The levy will need to be set at a level that covers enforcement costs, but also that brings about a reduction in car use for commuting. The acceptability of this will need to be established at the outset;
- The impact of both workplace parking levies and road user charging will affect the demand for public parking, both on and off-street. For example, levies might cause some long stay demand to switch from private to public car parks, or a reduction overall of long stay demand could lead to increased demand for short stay parking. For road user charging it will reduce the demand for parking within the charged area and this could open up a number of opportunities to review charges, reduce the space for parking and redevelop parking areas for other purposes;
- The reaction of the businesses affected and whether they offer compensation to their affected employees;
- The potential effects on travel behaviour; and
- Parking outside the charged area will also need to be reviewed.

On street parking – provision and control

Design of streets

In designing streets, parking issues that can arise include the provision of structured bays adjacent to, but not strictly part of, the carriageway, and use of footway built-outs that can prevent parking in inappropriate

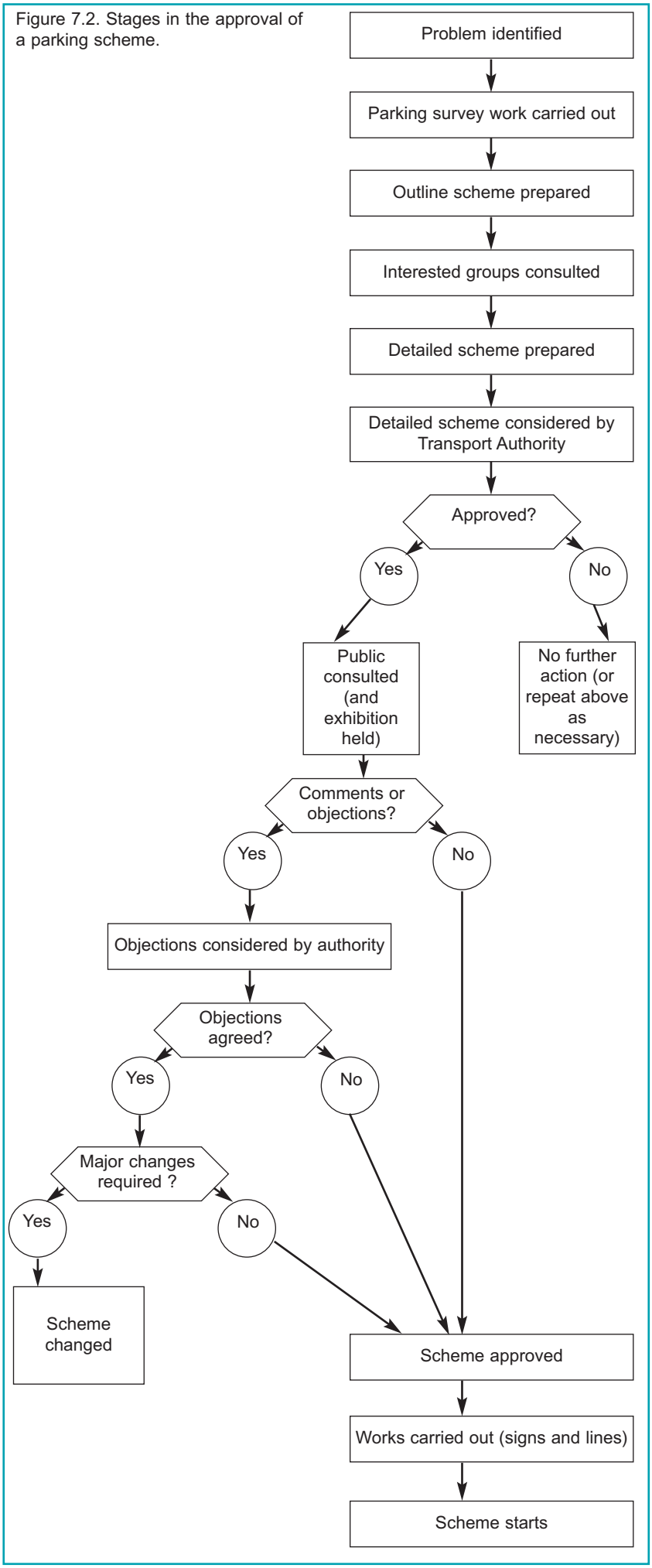


Figure 7.2. Stages in the approval of a parking scheme.

or illegal places. It is important to recognise that opportunities arise for the modification of streets independently of specific improvement schemes. A watching brief should be kept to ensure that such opportunities are taken as they arise. A design guide, or set of design principles is necessary for this to happen. For example, street profiles and kerb alignments can be introduced simultaneously with major utility or road maintenance works, thus reducing costs. Simply "putting it back as it was" remains common practice, but it is not recommended.

The German State of Northrhine Westfalia redesigned 1600 main streets during the 1990s, and many of these arose from opportunities presented by, for example, light rail schemes, major utility replacements and regeneration projects.

In the older quarters of Amsterdam, when streets are re-laid, they are redesigned to a standard street profile defined for the particular category of street.

Revised layouts and designs should ensure an appropriate allocation of space between different users, including those wishing to park or load. The design and allocation of space should take into account a range of users and objectives, including the use of space for amenity and enjoyment, as well as different road users. It must also be recognised that there are many other issues besides parking that are connected with street design and advice on those should be sought from appropriate documents.

Parking and loading can be provided for in bays adjacent to the main carriageway, whether or not the space is subject to controls and charges. There is possibly a difficulty over how these should be signed and marked as the signs and markings prescribed for on-street bays in the Traffic Signs Regulations (4) are specifically for parking on the carriageway or partly on the carriageway and partly on the footway. Any such

difficulty should be specifically checked out and advice sought. They do have the advantage of not obstructing the movement either of vehicles or of pedestrians. Furthermore, the design of parking bays should be related to traffic flow and traffic speed. For example, echelon parking involving reversing to exit is inappropriate whatever the traffic speed. The Regulations (4) only prescribe a reverse-to-enter layout.

Cycle movement can be separately provided where there is sufficient width. The design of Red Routes in London provides extensive examples of such re-design, including the use of former general running lanes for conversion to parking and loading bays between footway extensions at pedestrian crossings and junctions.

If the carriageway is limited to a single lane in each direction, with some form of divider between them, this can be an effective way of preventing parking or stopping, since to do so will immediately obstruct the movement of other vehicles. This technique has been used successfully in Borehamwood, Hertfordshire.

Traffic Regulation Orders

The powers relating to Traffic Regulation Orders (TROs) are discussed in Chapter 3. Implementation of a TRO involves careful planning of the design details, and a robust procedure to secure approval. There is also merit in keeping such TROs as simple as possible in order to aid driver comprehension and to minimize the amount of signing required. The process for making TROs is set out in Annex B.

The type of regulation for any particular length of kerbside will be determined by the priority given to competing traffic management objectives. The setting of general priorities is discussed in Chapter 5. In designing a TRO for a specific location, these priorities may need to be defined in more detail. A typical priority list might be:

- Safety, including zigzags for pedestrian crossings and schools;
- Maintain traffic flow;
- Bus stops;
- Loading for business premises without off-street loading;
- Disabled bays close to surgeries, disability charities etc;
- Bus lanes;
- Doctor permit bays;
- Resident permit bays;
- Taxi ranks;
- Business permits;
- Motorcycle and cycle parking;
- Short stay parking; and
- Long stay parking.

The range of uses and the priority accorded to each will vary with location. For example, in some business districts loading may take priority over traffic flow. It may also vary during the day, with traffic flow

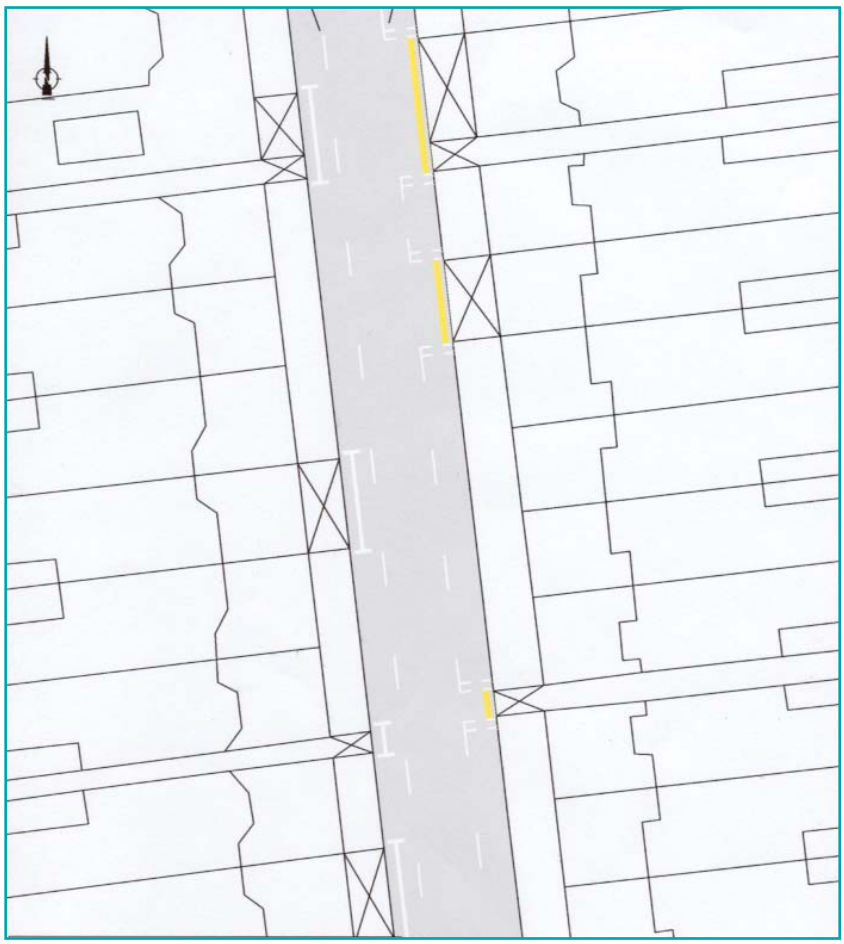


Diagram bay markings – West Sussex.

favoured at peak periods and loading at off-peak periods.

A technical assessment of the competing demands for space, together with a reasoned justification for the particular set of priorities being recommended, should be provided. However, in communicating this assessment through the process of consultation, it is important to recognise the political dimension and the need to make choices and trade-offs explicit, having regard to national and regional policy guidance and their other policy concerns.

Implementation timing

Figure 7.2 outlines the stages required in the introduction of an on-street parking scheme, such as a controlled parking zone (CPZ). The process of consultation and raising public awareness can be time consuming. Best practice is to undertake an initial consultation prior to drawing up detailed designs, including a TRO, before undertaking a full public consultation exercise. This may still require the TRO to be modified and re-advertised. When planning a consultation exercise, it is important to avoid school holidays, especially the summer, when many people will be on holiday. If the validity of a consultation can be challenged successfully, the implementation of the scheme might be deferred, or in the case of a DPE scheme, the Secretary of State could refuse an application for a Special Parking Area (SPA). Advice on the consultation process itself is given in Chapter 8.

The setting up of a DPE scheme can be equally resource intensive and a timetable should be drawn up allowing adequate time for the following steps in the procedure:

- Carrying out a feasibility study;
- Financial modelling;
- Seeking agreement between County and District Councils where necessary;
- Review of all Traffic Regulation Orders;
- Application to the Secretary of State for the necessary powers; and
- Set up time for contract preparation and tendering, or the development of in-house systems, and the recruitment and training of staff.

Having established the basic programme and sequence of activities, it will be necessary to fit this to the calendar, making adjustments if necessary to take account of critical seasons and holidays.

As with all potentially contentious schemes, political timing can be a major determinant for the implementation of demand restraint or demand management mechanisms. Whilst in the long term the introduction of a CPZ can prove popular with residents and businesses, there can be short-term hostility to the scheme in the run-up to and following implementation. The sensitivity of elected Members to the introduction of such a scheme coinciding with local elections should not be under estimated.

Seasonal timing needs also to be considered. The proposed implementation of a scheme requiring extensive lining works can be severely disrupted by an extended period of cold, wet weather (paint cannot be applied to cold, wet or salty surfaces). To overcome this, thermoplastic markings on public roads are used, as these can be applied in low temperatures. Lining works in the summer might conflict with local trade considerations where, for example in a town with a strong seasonal economy, disruption of the on-street parking capacity could affect the economic viability of a major sector of the local economy. In general, April and October are the best times to start a scheme, with signing and lining thus carried out in March or September. The caution about political timing may be particularly relevant if local

elections are due in May following implementation in the preceding month.

It is important to keep people informed throughout the implementation process through an on-going communication strategy; managing information and the media is a major consideration in keeping both politicians and the public on board (see Chapter 11).

Incorporating exemptions in the TRO

Most TROs have standard exemptions from parking restrictions for certain classes of road user: typically these are:

- When directed by a police officer or traffic warden in uniform;
- To pick up and set down passengers and their personal luggage (but not to sit outside a shop while someone else does the shopping!);
- When the vehicle is in use for fire, ambulance or police purposes (which does not include when the driver is going to get a sandwich or popping to the cash machine!);
- To prevent an accident;
- When the vehicle has broken down and is awaiting assistance;
- Vehicles being used for collecting or delivering mail;
- Statutory Undertakers carrying out emergency work; and
- People engaged on the maintenance or repair of the highway.

Some authorities also exempt vehicles on council business. This exemption is clearly required for services such as meals-on-wheels in liveried vehicles, but the delivery industry resents local authorities giving privileges for their own vehicles that are denied to others carrying out similar work. It is, therefore, important that councils, when drafting orders and establishing operating practice have regard to the equity of the exemptions they allow themselves, in order not to bring themselves or the regulations into disrepute.

Planning signs and road markings

Signs and markings are essential in order to inform drivers of the regulations that apply. In addition, non-compliance with TRO regulations cannot be enforced unless they are properly signed. The design of signs is prescribed in the Traffic Signs Regulations and General Directions (TSRGD) (4) that specifies the purpose for which signs are to be used. Any sign that is required that is not in TSRGD has to be specially authorised by Department for Transport. Early consultation on such signs is encouraged with the Department and with the Welsh Assembly or Scottish Executive if the signs are to be in Wales and Scotland respectively. This is to ensure consistency and to prevent signs being used that have different meanings in different localities. The road markings form part of the signs necessary for an order, and also have to be of the specified form and dimensions.

If signs and lines are not properly maintained then there can be considerable administrative cost for authorities in cancelling tickets, and loss of revenue through inability to issue Penalty Charge Notices or raise charges.

Efforts should be made when designing or revising a TRO to minimise signs and markings because of the negative impact of street “clutter”. This could also impact upon sensitive locations and reinforces the point to keep a TRO as simple as possible. Complicated regulations need complex and larger signs. Thus, where the street or public space is especially sensitive to the impact of such clutter, visual intrusion can be greatly reduced by designating entire streets or areas so that parking regulation signs are provided only at the boundary. With careful design,

Sign and road markings for double yellow lines.

repeater signs and surface markings can be avoided without loss of control over parking and loading activity. This is the standard approach in mainland Europe, and it has been applied at some locations in British towns and cities. Some as, for example, in Shrewsbury required special authorisation, as it did not comply with TSRGD regulations.

In order to improve townscape and urban quality, special attention should be given to these issues in the development of parking schemes. When schemes are being developed, or where opportunities arise for alterations to signs and markings (such as resurfacing and other maintenance), those responsible for parking and for urban design should liaise with one another to achieve the best result.

Computerised design and management of parking control schemes

Computer software is available to provide full digital mapping of all parking orders together with the precise location of signs and markings. Such maps allow new traffic orders to be published as maps rather than wordy and often indecipherable schedules. The mapping of signs and markings also provides a detailed inventory from which maintenance can be carried out. Sign replacements and repairs can be ordered from the sign shop by direct reference to the computerised inventory.

With a fully computerised inventory of regulations it is possible to overlay the parking infringement data from the Parking Attendants' records so that it is possible to produce print-outs of where most offences are taking place and what type of infringements they are. This allows "intelligent enforcement" responses, such as to increase the patrols in particular locations, or to check that the regulations and signs are appropriate and well displayed.

The costs are not great but they do have to be justified against the overall parking revenue budgets. Supermarket practice uses customer information that allows the retailers to tailor their products and thereby increase their turnover and profit. Information should similarly enable parking operators either to increase their revenue or to improve the responsiveness of the parking operation to transport management objectives. Such improvements to parking practice will benefit not only the local authority, but also the public who benefit from more efficient services.

Restricting parking for road safety

Zigzag markings, double yellow lines and red lines used at pedestrian crossings prohibit parking at any time. Indeed they also prohibit stopping to drop off or pick up passengers and loading.

Where parking is decriminalised the local authority needs to consider arrangements for enforcing these restrictions at night, as police officers are no longer able to enforce such restrictions. The safety of road users is not the only consideration. Where streets are narrow, or junctions constricted it might be necessary to provide 24-hour restrictions to ensure that emergency service vehicles, particularly fire engines, are not impeded.

Zigzags for pedestrian crossings are designed to ensure that all drivers have a clear view of pedestrians waiting to cross or starting to cross, and are provided on the approach to crossings. TROs are not required but the provision of zigzags is mandatory for all types of crossings. Zigzags prohibit stopping except in certain circumstances specified in the Regulations. Despite this it is advisable to continue traffic orders through the zigzag area so that if the crossing is subsequently moved, the TRO does not need modification.

Where pedestrian signals are provided at signal-controlled junctions, or pedestrians are expected to "walk with traffic", a TRO providing for no parking or loading at any time should be made to keep the sight distances to pedestrians clear on the approach to the crossing and within the junction.

The need for such regulations can to a large extent be "designed out" by realigning footways and kerb lines to make parking physically impossible at locations where it would be hazardous at any time. Under current regulations, however, zigzag markings are still required at crossings, even if stopping is made impossible through such redesign.

School Entrances

Vehicles parked at school entrances during arrival and leaving periods pose a particular safety hazard and should be tackled in the following way:

- Provide yellow (advisory) zigzag markings outside the school entrance;
- Support markings with TROs and vertical signing, where necessary, to enable better enforcement;
- Communicate with the school to promote awareness of and action to solve the problem;
- Ensure that regulations are enforced; and preferably
- Use design techniques to reduce reliance on regulations and to "design out" abuse.

School entrance markings can be placed on both sides of the road, if appropriate.

It is important that local road safety officers keep contact with schools, and that regular communication with parents is arranged. Information should be given to parents at the beginning of every autumn term to advise them of the purpose of the markings and the need to comply for the safety of the children. Further encouragement may be needed through the school year if compliance is poor, for example by arranging for a roster of parents to act as volunteer wardens during school arrival and departure times.

Traffic authorities should ensure that appropriate TROs are in place. This becomes of particular concern where parking enforcement is decriminalised, as parking attendants cannot use police powers to enforce obstruction or careless driving offences, and must enforce against a valid TRO.

School entrances are a particular location where the problem can sometimes be 'designed-out' by extending the footway out across the area otherwise occupied by the yellow zigzag markings. This is easiest to achieve where kerbside parking can be provided for in defined bays. The advantages of this measure are:

- The physical prevention of parents being able to stop their vehicles in an area where they cause a danger;
- The provision of extra footway space that can be enjoyed by children and parents for social interaction; and
- The extra footway space reduces the likelihood of children walking or running into the carriageway at congested times.

Pedestrian Crossing Places

Regulations are often required for the safety and convenience of pedestrians. Obstructing a dropped kerb can result in wheelchair users having to travel down the carriageway to another location where they can access the footway. It is an offence of highway obstruction, which can be enforced by the police as an endorsable Fixed Penalty Notice (FPN). In areas with decriminalised parking enforcement (DPE) it is useful to provide "no parking or loading at any time" orders so that a parking attendant is able to issue a penalty charge notice (PCN). This would not prevent a police

Variety of different restricted parking signs – Taunton and Watford.

officer or traffic warden issuing a FPN for the endorsable offence of obstruction.

If possible, the problem of obstruction of places where pedestrians cross the carriageway should be "designed out" by extending the footway. This both helps to prevent obstruction by parking and reduces the distance that pedestrians have to cross. Footway extensions combined with central refuges will prevent obstructive parking altogether, provided that the remaining lane width does not exceed 3.6 metres.

Restricting parking for traffic flow

Restrictions will vary according to circumstances in order to maintain traffic flow. In some locations, such as on major through routes with no frontage development or service roads, 24-hour clearways will be appropriate. "At any time" restrictions will also be necessary in many locations, such as close to traffic signal stop lines, where parking could obstruct flow even when there is little traffic. At times when traffic flows are high or road widths limited it will be appropriate to introduce working day or peak period restrictions. Peak hour clearways can be used where the characteristics of the road are relatively similar for the whole route. On many urban main roads with frontage access this will not be the case and restrictions should be designed to match the nature of the road as it varies along its length. In a study of south east Birmingham it was found that locations serving as district centres with commercial frontage access accounted for roughly 10% of the main road network (5). The Traffic Management Act is also relevant here.

Clearway restrictions are a complex subject. As applied 24 hours they require:

- Continuous road lengths where traffic flow would be impeded by parked vehicles;
- Properties nearby likely to attract parking in the absence of restrictions; and
- No frontage access requirements.

Peak time clearways are appropriate where:

- Access to frontage properties is required, and there is no alternative provision, such as access roads or off-street bays; and
- Traffic flow is markedly peaked.

Clearway signs.

Restrictions at junctions

In most urban situations the junctions determine traffic capacity, not by the link capacity between junctions. In streets where it is intended to ensure that vehicle flow through the green phase at junctions is maximised (including when signals are set to favour pedestrians), parking restrictions

should be applied on the approach to the junction in order to maintain that capacity.

For signalled junctions the distance back from the junction to be restricted will be the length of the platoon of vehicles that can pass through the junction in one stage of the signals. Greater set back of restrictions generally will not increase the capacity of the junction.

For roundabouts and priority junctions the impact of parking on capacity can be calculated by varying the flare widths on the approaches when calculating junction capacities using computer simulation programs. There will also be a need in such cases to protect the capacity of the junction by restricting parking within the junction and on the exits.

Where parking reduces junction capacity and there is a need to provide for loading on junction approaches, this should be done off-peak or, where flows are heavily tidal, in the contra-peak direction. In some cases, such as on gyratory systems, there may be a need to provide for loading within the junction. Once again a careful and systematic analysis will be essential to ensure an appropriate balance between traffic flow and the requirements of access to frontage property. Reference to the Traffic Management Act would also be helpful.

Collis and Read (6) showed the importance of ensuring that parking was restricted and effectively enforced on the approach to critical junctions. Their study showed that enforcing a particular 50 metre length of kerbspace before and during the evening peak would show a benefit cost ratio of over 15:1 if a traffic warden were fully engaged on this single length of road during the critical period.

Bus Stops

Local authorities should ensure that all bus stops are:

- Kept free of parked vehicles;
- Designed so that buses can draw alongside the kerb to facilitate easy access;
- Designed in ways that physically discourage parking obstruction; and
- Located so that parking restrictions can be effective, and for the convenience of passengers.

All new buses in the UK are of the low-floor type, designed to ease access to those with mobility difficulties. The statutory requirements that lead to the extra cost of the vehicles are largely frustrated if the bus cannot stop easily close to the kerb. Parking and loading should, therefore, be restricted at bus stops.

Parking restrictions should apply at least during the periods when bus services run, and preferably 24 hours a day throughout the year. This is because:

- Permanent restrictions are easier for drivers to understand;
- Permanent restrictions signal a seriousness about priority for public transport, and may engender compliance with wider bus priority measures;
- Permanent restrictions are needed for the growing number of areas that have (or should have) night and weekend bus services; and
- Part-time restrictions are incompatible with purpose-designed bus stops involving raised platforms, shelters, and build-outs (bus boarders).

Bus stop clearways do not require a TRO, as all new bus bays are now covered by the Regulations (4). The markings will have the meaning specified in the Regulations. TROs will only be appropriate if no bus bay is marked on the carriageway.

In preparing TROs for bus stops, the best design and location for the stop should be pursued:

- When there is permitted parking or loading either side of the bus stop,

consideration should be given to provision of a bus boarder, which is a widening of the footway so that the bus can approach the kerb more easily and illegal parking can be deterred;

- When the aim is to make buses accessible to those with mobility difficulties. Accessibility can be increased if higher kerbs (the usual design is known as the Kassel kerb) are installed in conjunction with bus boarders. These have the added advantage of discouraging cars from parking or stopping at the bus stop since the higher kerb can prevent a car door from opening; and
- When the bus stop is just downstream of a side road junction with yellow line restrictions, it makes it easier for the bus to get close to the kerb.

Bus Lanes and Bus Gates

Bus lanes and other parts of the road network where buses have priority should have parking and loading restrictions that prohibit any other activity to obstruct bus movement. Such restrictions should apply at least during the period of operation:

- Parking should be prevented at all times; and
- Loading should be prevented at critical times.

Where access for frontage loading is required this would preclude 24-hour bus lanes being introduced, unless space can be found for a separate loading bay. The bus lane would, therefore, normally be timed for the period of the day when buses are most affected by congestion, usually the morning and/or the evening peak, and loading allowed during the inter-peak period.

The parking and loading restrictions should be consistent, in terms of the location and time periods, with the bus lane order. It may also be necessary to introduce controls on the other side of the street during the operational period of the bus lane order, as vehicles precluded from using the bus lane may have to straddle the centre of the carriageway.

Cycle facilities

Some cycle facilities need to be protected from obstruction by parked motor vehicles. As with bus lanes, parking restrictions ideally should apply 24 hours a day, but at locations where kerbside loading is required, with-flow cycle lanes may have to operate at peak hours only.

Where frontage access is provided throughout the day, cycle provision should take into account the following:

- A cycle lane should be provided on the offside of a parking/loading lane;
- The parking/loading lane should take the form of a bay defined within the footway or between footway “build-outs”;
- The cycle lane must be of sufficient width to minimise the risk to cyclists caused by opening of vehicle doors; and
- Where there is intense parking pressure (leading to double parking), cycle lanes are of little value.

For further details about parking in relation to the design of cycle facilities, see CROW (7).

Cycle gaps through road closures in the contra-flow area of a one-way section of street should have permanent 24-hour parking and loading restrictions. This is another instance where the problem of obstruction by thoughtless parking can be solved through design.

Short stay parking

Short stay parking can be controlled by payment or by limited period free parking. Where there is both on- and off-street available, it is usually desirable to provide for short stays (less than one hour) on-street and for longer stays off-street. This reduces congestion

in off-street car parks and is more convenient for short stay users.

Limited period free parking is used in many areas with parking permitted for a specific duration, with return prohibited for a further period. This is very difficult to enforce effectively and is usually widely abused. If charges are made it is easier to identify people who stay beyond the permitted period, rather than people who return within the no-return period. It is, therefore, preferable that charges are made in areas of limited-period parking.

An alternative is a disc-parking scheme, where discs similar to those used by blue badge holders can be used to indicate arrival and departure times. Enforcement action can be taken against those not displaying a valid disc. This system can be a problem in areas where there are a lot of casual visitors, as the visitors may not be familiar with the system and have to obtain a disc. If an administrative charge is levied for the disc this results in the need for the authority to make formal arrangements with local retail outlets that sell the discs, but reduces the number of discs required. Where no charge is made, the number of discs issued can be very high as there is no incentive to look after a disc once it has been obtained. However, distribution costs are negligible as local retailers are happy to hold a stock and give them to customers, and the cost of printing the discs can be offset by advertising revenue. In some areas there has been resistance to the use of discs as penalties have been issued to motorists who are not aware of the nature of the system.

On balance it is generally preferable to charge a modest amount for short-term parking rather than attempting to provide a readily enforceable system that is free.

Retailers' concerns

Where there is no charge for parking, access for short-term stops for shopping is often difficult. In some areas politicians and shopkeepers have a fear of on-street parking charges, although, where they have been introduced, they are often welcomed as the use of charges can ensure that spaces are available for customers.

In considering representations on changes in parking and loading regulations, authorities should be aware that frontage businesses often claim that they are concerned about access for their customers but are actually protecting their own established practice of using the parking spaces themselves.

On-street charging methods

Various methods are available for charging for on-street parking. The commonest are single bay meters, multi-bay meters, vouchers and pay and display machines. Each system has advantages and disadvantages in terms of impact on the street scene, customer convenience and operational efficiency.

1. Single Bay Meters

Single bay meters are well known and understood by the public, as they have been widely used since the early 1960s. Clockwork meters are now rare and any new installation would be of electronic meters. These use batteries and do not require a mains electricity supply.

Single bay meters have a particular advantage over other methods in that the meter is adjacent to, and clearly earmarked for a particular parking bay. Drivers know that that the information displayed applies to the bay chosen. It is also clear to enforcement officers that as soon as the driver walks away from the vehicle, payment should have been made. With pay-and-display drivers may be returning in order to display the ticket.

Particular parking for shoppers – Westminster.

Different ways for payment – Newcastle, Westminster and Maidenhead.

In areas of very high demand and high charges, such as central London, single bay meters are often preferred. The time taken to pay-and-display can be greater than the time needed to conduct very short-term business, and consequently control of kerbside space would break down.

Meters have a number of disadvantages, however, which in many places have led to their replacement by pay-and-display meters:

- A lot of machines are required which adds to street clutter;
- Some models of single bay meters may not indicate the amount that should be in the meter when cash is collected. This makes audit control difficult and there is risk of fraud;
- Faulty machines result in a loss of revenue and parking space until they are repaired; and
- They are subject to abuse by motorists who attempt to block them to avoid payment, (although it can be made an offence to park at a broken meter), and attack by thieves seeking access to the cash inside them.

2. Multi-Bay Meters

Multi-bay meters reduce street clutter, but are less well understood. They are particularly useful where there are only a few bays grouped together to be controlled, and are cheaper than installing pay-and-display machines. Like single bay meters, they are battery operated and do not require connection to the electricity supply, but they have the advantage that they can provide audit data.

3. Voucher parking

Pre-paid vouchers, in the form of scratch cards validated at the time of parking, have been popular in areas where the aim has been to avoid street clutter. This system avoids any on-street equipment, although expired vouchers may litter the street. However, the system has become unpopular with both users and operators:

- It is only suitable in areas where most users are regulars who understand the system and are able to purchase vouchers in advance;
- Enforcement can be difficult. Parking adjudicators are likely to rule in favour of someone who parks and then claims to have tried to purchase a voucher. If no retailer or other voucher outlet is available within a short distance, it is likely that a penalty notice will not be upheld;
- Voucher schemes have never been widely used in the UK, and they are poorly understood;
- Providing vouchers through retailers and other outlets involves considerable administration costs; and
- Parking spaces can be a considerable distance away from the nearest outlet, and a driver's short-term business can be conducted more quickly than acquiring and displaying the voucher.

As a result there are few situations where voucher-parking schemes could be recommended and schemes installed by some authorities have been changed to pay-and-display in recent years as a result.

4. Pay-and-Display

Pay-and-display is now the commonest method of controlling short-term on-street parking. From the viewpoint of the community and the operator, pay-and-display has a number of advantages over single bay meters, not least of which is the minimal impact on the street scene, especially since the availability of attractively designed machines.

Advantages are:

- Motorists are familiar with pay-and-display and the

system is easy to understand;

- Provided the equipment can be shown to be in good working order, it is rare that a penalty notice would be overturned on appeal;
- A single machine will normally serve between five and 20 parking spaces. This imposes minimal street clutter;
- Where there is another machine within a reasonable walking distance the charges can be enforced even if a single machine malfunctions;
- If the machines are checked at least daily, losses due to machine problems are minimal; and
- The audit control on pay-and-display machines is good. For example, one authority with 50 machines turning over a total of £5000/week rarely has a discrepancy of more than £3 on a weekly account, and can usually identify the cause of any greater discrepancy.

Disadvantages are:

- The driver must park first and then find a machine relating to the chosen space;
- The driver must then return to the vehicle to display the ticket, possibly involving the locking, unlocking and re-locking of the car; and
- The machine must be found before the charge rate and other conditions of use can be determined.

As with all on-street control methods the driver has to predict the duration of parking and commit to the cost of that duration at the time of parking.

Label meters for clarity

At meters and pay-and-display machines charges should be displayed as an hourly rate, as well as a rate for a given number of minutes. For example, users find it easier to understand "£1.50 per hour" than "25p for 12 minutes" when deciding how much money to insert. Meters in the Royal Borough of Kensington and Chelsea now display both.

Power supply for Pay-and-Display machines

Machines are powered by one of three methods:

- Mains electricity
- Rechargeable battery
- Solar power with battery back-up

Connecting machines to mains electricity usually costs several hundred pounds per machine. If it is necessary to move the machine similar costs are incurred. Revenue is also lost if the power supply is interrupted. This can happen of there is a general mains failure in the area or if the local supply cable is cut, as can happen during utility works.

Machines are available on the market, and have been for some years, that can provide high quality service without mains electricity. Rechargeable batteries need replacement at intervals far less frequent than the service visits necessary to collect cash and re-stock tickets.

The performance of pay-and-display meters from different manufacturers varies, but there is sufficient operating experience to demonstrate that meters with rechargeable batteries are the most economical type of pay-and-display meter over the life of the machine. Although solar powered machines may be regarded as the "green" option, the small amount of electricity saved over the lifetime of the meter must be set against the possibly larger amount used in the construction of the solar panel. The solar panels can also be vulnerable to vandalism.

Technological advances have also provided "intelligent ticket machines" that "call" the central system when they have a fault or are running out of paper, or when the cash box is getting full.

Providing parking privileges

TROs can be designed to give privileges to certain users through the issue of permits, for example to:

Different ways for payment – Newcastle, Westminster and Maidenhead.

- Residents;
- Visitors;
- Business people;
- People with a mobility disability; and
- Doctors or other health workers.

All such permits grant a privilege that is not available to other motorists. As such they create a valuable asset that can be vulnerable to abuse. For example, in central London fraudulent resident permits will attract a particularly high premium as they confer a 90% reduction on the normal charge of £5 per day to drive in the area imposed by the London congestion charging scheme.

Permits should, therefore, be introduced or supported only when there is sound evidence that an important policy objective is served by providing such privilege. Control of their issue and their enforcement is an essential part of the proper management of permit schemes.

Providing for on-street loading

In order to ensure that loading is properly catered for it will be necessary to establish, through surveys and interviews:

- The premises requiring on-street loading facilities;
- The duration and frequency of loading activity; and
- The size and nature of the goods being loaded.

Where the speed or volume of traffic is likely to make loading activity hazardous, speed or traffic management measures to reduce the source of conflict should be considered.

When setting the times for loading restrictions, care should be given to consider the needs of businesses. If possible the restrictions should apply at the same times as for parking restrictions. There may be specific local circumstances, however, that demand a flexible approach. This will need to be considered as part of the consultation with businesses along the route and the prospect of introducing innovative solutions should be explored.

In entertainment districts, where restaurants and bars are open until the early hours, it may be appropriate to permit loading during the morning, and restrict it from lunchtime until late at night, when the streets are busier. This would mean that restaurants, where the staff finish work in the early hours of the morning, could receive deliveries towards midday, as they are opening for lunch, rather than have to roster staff to receive deliveries early in the morning.

During planning of the Red Route network in London, it was initially thought desirable to standardise the times of restrictions as 7am to 7pm, which was the norm for bus lanes. However this would require the proprietors of lock-up shops to be present well before 7am to receive deliveries, and this would be a daily problem for those premises receiving fresh foods. Where traffic surveys showed that there would not be problems for free flow of traffic, particularly buses, the start of the restrictions was delayed until 08.00 hours.

In streets where loading on both sides of the road would restrict traffic, such as by making it difficult for two buses to pass, it can be useful to permit loading on one side of the road until 1pm and on the other side after that. This means that loading vehicles can stop somewhere in the street at any time, but congestion is avoided. If a business has deliveries that would be difficult to carry across the road, they can arrange with their suppliers for a morning or afternoon delivery to suit the permitted hours on their side of the road.

Traffic orders for loading restrictions should normally limit time for loading to twenty minutes. There is merit in maintaining this, as a consistent requirement across the country as it is well understood by delivery firms and the time limit is not normally signed. Where there is a particular need for longer unloading periods, such

as for a firm that regularly receives large consignments, consideration can be given to providing a marked loading bay, with a different time limit signed. In general, however, firms regularly wishing to load or unload large consignments should be encouraged to conduct their business on their own premises, not on the street, and local authorities should give careful consideration to the policy implications of permitting such activity before approving a longer time limit.

Providing for Disabled Badge Holders

Loading

In planning for loading restrictions it should be recognised that Blue (or Orange) Badge holders are permitted to park for up to three hours outside the period that a ban on loading or unloading is in force, including single and double yellow line restricted areas. In some locations this can cause serious problems for businesses requiring loading or unloading. In those circumstances consideration should be given to marked loading bays, where Blue Badge holders are not permitted to park under the rules of the scheme. For example, where there is likely to be loading activity close to the bus stop it is important to reserve space so that this can occur without vehicles obstructing the bus stop. If space allows it may be better to provide loading bays, as these are more respected than yellow lines in such locations.

Disabled bays close to surgeries, disability charities etc

The requirements of blue badge holders in shopping streets and other town centre locations are normally met by the concession, which allows them to park where loading is permitted (but outside the period when a ban is in force). However, there are some locations where there are specific needs for people with disabilities. These might include doctor's surgeries or premises operated by organisations giving advice and support to people with disabilities, and local authority offices. Bays can be provided that are exclusively available to blue badge holders in these circumstances. It is also sometimes desirable to provide disabled bays close to pedestrianised areas to enable mobility-impaired people to reach shops with ease. In such areas their access needs should be carefully planned, with a mix of provision on and off-street, including a Shopmobility scheme if there is sufficient demand.

In determining whether to make such provision authorities should consider whether the restricted use of the kerbside is necessary to meet a social policy objective, whether the scale of use is sufficient to deny use of that length of the kerb to other users, and whether serious difficulties will be caused to others denied use of the space, as well as the convenience of the blue badge holder. The Regulations (4) allow signs to indicate a time limit on parking in disabled badge holder bays.

Resident Permit Schemes

Parking pressures

The hours of restriction should include all times when demand exceeds supply. In most areas this is confined to the working day, when pressure on space

Parking for disabled drivers.

Designated residential parking signs.

from commuters and shoppers is most intense. However, increasingly there are areas where the problem is less tractable, for example, where:

- The number of cars owned by residents exceeds the kerbside space available, making it difficult for residents to find a parking space near to their homes, and leading in extreme cases to double parking and dangerous parking at junctions; and
- The area has restaurants, hotels and other facilities attracting visitors in the evening or at night.

In these cases the hours of control may need to be extended, and this has implications for enforcement resources.

Parking for residents should not be restricted as to length of stay, otherwise residents will be forced to drive their cars away from the area simply to avoid a parking penalty, thus generating unwanted traffic.

Allocation of Permits

Criteria must be established for the issue of residents' (and other) permits. The main purpose is to ensure that residents have a good chance of finding a parking space close to their home, enabling them to leave their vehicle there even if there are restrictions on parking by non-residents. For this benefit to be realised the criteria for issue must relate to balancing supply and demand. This cannot easily be predicted prior to the introduction of a residents' parking scheme, and so implementation must include a review of the scheme after a settling down period.

If after the introduction of a residents parking scheme, supply of parking space is adequate to meet residents' parking demands, a review of the space allocation may be required to:

- Allow issue to households of multiple permits, based on proof of residence and vehicle ownership;
- Convert a proportion of residents' bays to other users, such as short stay bays, business permit holders; and
- Convert some parking bays for footway or amenity uses.

If, on the other hand, demand is higher than can comfortably be accommodated, a review for reducing demand will be needed.

Most local authorities have opted for a simple qualification of having the main residence within their area. This can lead to the number of permits far exceeding the supply of parking space, especially in areas of housing multi-occupation. There is no legislation that prevents a local authority from rationing permits by number or some other method. The options for demand reduction include:

- One permit per dwelling unit at a basic charge, with a higher charge for the second or subsequent permits;
- One per household using the Council Tax register to define a household; and
- Excluding those with off-street parking facilities from having permits.

In areas of parking pressure most residents consider that it is fairer that permits should be limited in this way.

Permit charges

Part of setting charges relates to the issuing of residents' parking permits. Where new schemes are being introduced the promoters always suffer the problem that people perceive the space outside their house where they park their car as a free extension of their property rights. A number of authorities have introduced residential parking on the basis of no charge. This seems to set a dangerous precedent for two reasons:

- It is difficult subsequently to introduce a charge; and

- There is clearly some cost for developing, establishing and enforcing such a scheme and, if the local residents are not contributing, why should all of the residents – even those without cars – be paying to provide a free privilege to others?

The level of charge and the rules of permit issue are related. The costs of permits must be linked to the costs of administrating the permit scheme. Problems of excess demand can arise if charges are set too low, or if the issue of permits is unrelated to the supply of kerbside space available for residents' vehicles. This can result in dissatisfaction with the scheme because people find it difficult to find free spaces near their homes. Where demand is high, or the supply of kerbside space is low, it may be necessary to limit permits.

Although precise costs can be difficult to determine, estimates suggest a range of around £20 - £30 per permit to administer a residents parking scheme (including the issuing of permits, the sending out of reminders, changing vehicle registration numbers, cashing cheques).

Guidance issued for London (8) recommends that "local authorities should, as a minimum, have a permit charge which covers the cost of operating and enforcing the permit system and bearing in mind the needs of people with a disability." It should be recognised that not many PCNs are issued in residents' parking bays if they are well enforced. The cost calculation should, therefore, include the full cost of patrolling with all attendant overheads as well as the administrative cost of issuing the permit. .

It should be recognised that resident permits have a value, as provision of off-street space might be £500-£1000 a year for a lock-up garage in a normal town, and up to £6000 a year for a space in a public car park in Central London (2002 prices). It is, therefore, necessary to exercise strict control to ensure that only those entitled to permits receive and use them. In central London there are specialist fraud investigation units because the potential for abuse is so great.

Deciding on Parking Zones

Resident parking zones (though not necessarily the area covered by schemes) should be relatively small, so that permit holders are not able to use spaces at a distance from their home as free parking when making trips to another part of the area. This "internal commuting" can result in difficulties for those residents who live close to shopping centres or stations as other residents are occupying the spaces. It is also undesirable on policy grounds to encourage the use of cars for short trips.

Consequently, where the overall controlled area includes both origins (housing) and destinations (such as shops and workplaces) separate zones should be created. The parking zones will still ensure that on-street parking is available in the vicinity of people's homes provided that demand is in reasonable balance with supply on a zone by zone basis.

The zone should, where possible, follow natural boundaries and be planned to have a reasonable provision of space compared to demand. In areas where there are overnight spaces available on single yellow lines, resident permit schemes can work satisfactorily with a ratio of 1.3 or even 1.4 permits per space. Census data is useful for estimating the number of permits that will be required, as household car ownership is usually available on an enumeration district basis. A good estimate can be obtained of the likely demand for permits by taking the number of cars owned in the area on census night, and then adjusting by:

- Deducting for dwellings with off-street parking;

- Allowing for any significant land use changes; and
- Adjusting for the age of data by using national statistics for the growth in car ownership since the last census.

Displacement

The level of displaced parking resulting from the implementation of a parking control scheme will depend on a number of factors. These include:

- The type and extent of the restrictions introduced;
- The off-street parking capacity in the area;
- The location of off-street car parks and their charges;
- The walking distance from the uncontrolled area to the town centre or other attractions;
- The availability of a competitive park-and-ride alternative for long-stay parking; and
- The cost, quality and availability of public transport alternatives.

The displacement effects are, therefore, more likely to be of significance in a small town, where the town centre might be within reasonable walking distance from the uncontrolled parking areas further out, and where public transport may be poor. In a larger town or city centre other effects, other kinds of displacement are likely to be more significant. For example, parking forced off the street due a residents' parking scheme is less likely to be displaced to uncontrolled areas because these will be some distance away. Instead the controls may lead to greater use of off-street car parks and greater use of public transport for access to the controlled area.

It is important that the management of displaced parking be considered at the outset of the development of a parking scheme. Mitigation measures might be incorporated within the proposals of a parking scheme, for example in the form of larger or additional residents' parking zones to act as a "buffer" surrounding a town centre parking scheme.

There is a particular need when implementing schemes to anticipate the displacement effect. It will mean that on-street parking problems will be shifted from one place to another, unless the controlled area is large enough. Residents who currently experience no parking shortage will experience such a shortage if their area is not included in the scheme.

When mitigation measures such as Residents' Parking Zones surrounding a town centre parking scheme are proposed, it is important that public consultation emphasises the possible effect of displacement from the town centre on the outlying areas (see also Chapters 8 and 11). It is likely that in areas where no parking problems currently exist, the potential effect of displacement will not be appreciated by residents with consultation often returning low levels of support for the introduction of parking controls in such areas. In the event that public support is too low for the proposed mitigation measures to be implemented fully, it is not uncommon for opposition to the scheme to collapse once the town centre restrictions come into force, with many residents expressing their desire for measures to be implemented.

If the public cannot be persuaded to accept a scheme that addresses future as well as present problems, a more reactive approach might be adopted, following planned and pro-active monitoring of a scheme. This may mean the incremental introduction of controlled parking, requiring resources to be available over a long period of time.

A short-term response or "quick fix" to ease conflict in areas most affected by displaced parking

might be the introduction of advisory "access protection lines" or markings (white lines). A short to medium term measure might be the introduction of single yellow line restrictions, targeted to combat long stay commuter parking to where this is obstructive. Whilst this prevents all day commuter parking it also restricts parking by residents. A medium to long-term measure might be the extension of an existing zone or the introduction of an additional zone. In addition, there are shared use bays. The Regulations (4) permit signs for spaces shared between permit holders and Pay and Display and for spaces shared between permit holders and time-limited free parking.

Whichever approach is adopted for managing displacement, this should be stated from the outset and the resource implications accounted for within the overall cost of implementing the parking strategy.

Providing for residents' visitors

In areas with resident parking schemes difficulties often arise for resident's visitors. Short-term meter parking does not necessarily meet the need, as it is often restricted to one or two hours and in many areas there is no suitable off-street parking available. Resident visitor permits can be a valuable part of a resident permit scheme in such areas. Usually they are provided at a discount to meter parking rates, and available for longer periods. It is, therefore, necessary that their availability is strictly controlled, or they become a form of currency, with consequent loss of revenue to the council, and undermine policies to restrict long stay parking.

Usually scratch cards are used for resident visitor permits, and they are pre-sold in books so residents can have a supply available for any visitors and validate them when required. Typically a resident might be allowed a limited allocation of tickets per annum, which can be used by tradesmen such as domestic appliance repair staff as well as for social visits. Some authorities also provide for an allocation of weekly tickets, which can be used if a relative or friend is visiting for a few days.

Resident visitor tickets should be available to all residents, including non car-owning households. They are of particular benefit for visitors to elderly or disabled relatives. Some people who choose not to own a car also find them valuable, as they can use them when they hire a car whilst the hire car is parked close to their home.

Providing business permits

Businesses should provide off-street accommodation for the parking and loading of large commercial vehicles, provided that this can be achieved in a way that is consistent with good urban design. However, in places where development took place before widespread motor vehicle use, there will often be a requirement to accommodate parking for business vehicles on-street. This can be achieved in two ways:

- Providing special bays for business permit holders; or
- Allowing business permit holders to park in resident permit bays, or in short term parking bays.

During the working day resident parking areas often have a large proportion of unoccupied spaces, and so there is no conflict if business permit holders are permitted to use them.

Business permits should be strictly controlled to ensure they are not used for personal commuting contrary to the transport policies the controls are designed to support. Authorities should limit business permits to:

- Businesses that have no permitted or authorised off-

street parking or loading space under the terms of their planning consent; and

- Businesses that require to use a vehicle for the purpose of the business during the working day.

It is not unusual for off-street space that has been provided for commercial vehicles to be used instead for commuter parking by people employed at the business. This may mean that the commercial vehicles are parked in the street. In these circumstances business permits should not be issued.

The cost of a business permit should reflect the cost of short term parking revenue forgone, as the benefit should be to allow the vehicle to park for a longer period than otherwise permitted and to avoid the necessity to pay on every parking event. The charge for a business permit should therefore be higher than for a resident's permit.

The provision for business use can be enforced by a declaration from the applicant and observation by parking attendants. A vehicle that is observed as not moving during the course of the day is unlikely to be necessary for the operational needs of the business, though there are exceptions, such as vans used to re-stock market stalls during the day.

Making special provision for Doctors and other Health Workers

Normally permitted parking bays are available to any user in the defined category. However, when it is desirable to provide doctor parking bays, normally for GPs close to their surgery, it is good practice to number the bays and restrict the use to the doctor or doctors registered with the permit for that numbered bay. This ensures that only the person for whom it is designated can use the bay. Local authorities may need to undertake detailed consultation to establish which people at a medical practice need a privilege of this sort. Besides doctors there are other health workers who may be dependent on their cars in order to perform their duties. They should normally make a charge for the permit that reflects their costs in making and maintaining the order, administration and enforcement.

Providing special Permits, Waivers and Suspensions

In writing the TRO for resident permit areas it is useful to have a provision for the council to issue special permits in exceptional circumstances. Examples of the use of special permits include:

- An enhanced allocation of visitor permits for an old people's home, so that the warden can provide them to residents' visitors; and
- The supply of a resident permit to a carer who visits a resident daily but would not otherwise be entitled to a resident permit.

Internal guidelines should be developed to ensure consistency on the circumstances when special permits can be issued. Authorisation should be by a senior officer or member of the council to ensure that issue is properly controlled.

The TRO should normally allow for waivers and bay suspensions, which are used for activities like building works, furniture removals, weddings and funerals and public events. The authority has discretion to charge for these and would normally do so for commercial activities such as building works.

Other on-street parking issues

Street Trading and Markets

Special licensing arrangements are usually made for street traders and street markets. Street trading is usually covered by royal charters going back centuries or by local Acts of Parliament. Special provisions may be required in TROs to ensure that spaces are cleared

in advance of markets, and some areas of road space will need to be allocated permanently to street traders who have rights to trade on a daily basis.

Hotels and Guest Houses

In some towns where there are small hotels and guest houses based in converted residential buildings there may be no off-street parking available. In this situation the landlords can be given or sold a daily parking voucher that they can provide to their guests so that they can park legally. This would normally be viewed as a commercial undertaking and charged for accordingly.

Parking on footways

Parking on footways often creates a nuisance and potential hazard, leading to obstruction of the footway, especially for disabled people, visually impaired people, and those encumbered with push chairs or buggies. Damage to paving will be the inevitable result of frequent parking, especially with larger format paving slabs. Trees and street furniture are also vulnerable to damage. Footway parking is a common source of complaint by residents and footway users.

Parking on footways and verges is prohibited where there is a traffic order prohibiting parking on the carriageway or there is a specific local legal prohibition. In London and some other local authorities there are local Acts of Parliament prohibiting footway parking except where an exemption is signed. Some other authorities have relevant by-laws; in one there is a prohibition on parking on “ornamental verges”. These, however, have to be signed.

Otherwise, parking on verges and footways is not prohibited unless there is an obstruction of the highway or damage is caused. Section 72 of the Highways Act 1835 makes it amongst other things an offence to deposit any matter whatsoever on the footway. Subsequent case law has established that on the footpath falls within the ambit of this legislation. Some authorities use this provision to prosecute vehicles that park on the footway and vehicles parked on private forecourts that have no authorised crossing, on the basis that they must have driven on the footway to be there, in the absence of any evidence to the contrary. Prosecution will, therefore, depend on the attitude of local magistrates; some authorities and police forces prosecute, and others do not. Local Authorities operating DPE can take enforcement action under that process.

Overnight Lorry parking

In some areas problems are caused by overnight lorry parking on the public highway. The most significant problem is that they frequently start up early in the morning and the noise causes disturbance to those who are still sleeping. When at their home base HGVs are required to have an operating centre where the vehicle is normally kept. Planning authorities have the right to comment on the suitability of operating centres when applications are made to the Traffic Commissioners. There is a need for lorry parking for those who are away from the home base. Some overnight lorry parks are available but there are still problems in some areas. In London there is a local Act that is used by most of the London Boroughs, which restricts overnight parking by vehicles over 3.5 tonnes. Any other authority that has a problem can promote a TRO to similar effect. Further advice is given in *Lorries and Traffic Management* (9)

Coach parking

In tourism, theatre and hotel districts there is often a need to make special provision for coaches. Many tourist attractions are in historic city centres where it is difficult to provide off-street

Nuisance footway parking.

Coach and lorry parking – Chichester.

Securing motorcycles.
Photo courtesy: DfT.

parking. Coach parking bays can be designated on-street, with or without charges. The Regulations (4) allow for signs that can be used to designate spaces that coaches and other buses can use. Major changes to a town centre's parking, for example by the introduction of a Controlled Parking Zone or the development of surface car parks, are likely to impact upon these arrangements.

The parking duration can be limited to picking up and setting down passengers, with the driver having to take the coach to another location for parking. In hotel districts overnight parking can be a problem, particularly if the area is also residential, and TROs can be introduced to prohibit overnight coach parking on-street.

Accommodating coach parking at or near the point of attraction has the advantage of reducing the amount of empty running by coaches, and being convenient for both passengers and drivers. In many locations, however, such parking causes unacceptable loss of amenity or safety hazards. Where no suitable coach parking can be made available near the attraction, sites should be found with the following attributes:

- A route between the attraction and the parking spaces that is not environmentally sensitive;
- If parking is to use on-street bays, these should be alongside "dead" frontage and away from places well used by pedestrians;
- A parking area that is shared with other large vehicles with different parking hours, such as a bus garage during the daytime, or an office car park at night time;
- Facilities for coach drivers such as toilets and refreshment facilities; and
- Supervision of coaches whilst parked for security reasons.

Such set-down and pick-up areas might need to be allocated close to the town centre or tourist attraction, together with an out-lying area provided for the laying over of coaches.

Motorcycle parking

There is a particular problem of security for motorcycles given their value as, even if a lock is applied, the vehicle can be stolen by being lifted onto a lorry. Best practice is to provide secure anchor points, either at ground level or by means of a raised horizontal bar integral to pedestrian railings. There is advice on the provision of security points for motorcycles and about methods of charging for motorcycle parking (10.)

Motorcycles have an inherent difficulty in displaying parking permits and Pay and Display vouchers so parking has traditionally been provided free of charge. Schemes have been developed to enable parking charges to be applied to motorcycles, for example, Birmingham City Council provide secure boxes beside parking bays into which motorcyclists post their Pay and Display ticket, having written their registration number on it. An overall approach to these problems has yet to be adopted amongst local authorities. Small motorcycles might also have a valuable role in maximising the use of parking at stations popular with commuters.

Advice on motorcycle parking in off-street car parks is provided earlier in this chapter.

Cycle parking

Cycle parking should be provided for major attractions, such as stations and shopping centres, and in small groups in dispersed locations around town and city centres. The "Sheffield Staple" or similar cycle stands enable cycles to be chained securely. Most areas have a local cycling organisation and consultation with cyclists should ensure that cycle stands are well

located and of a design that meets their preferences. It is desirable for local authorities to offer advice to developers as part of the planning process on the design and provision of cycle parking facilities.

Where there are particular problems of vandalism and theft, the use of cycle lockers, especially for medium to long-stay use such as at stations and leisure facilities, should be considered. Where control of access or finance are significant issues, the lockers can be rented on an hourly or daily basis, or leased for permanent use by regular users who need to guarantee availability.

Further advice is available in the IHT publication *Cycle-Friendly Infrastructure* (11).

Taxi ranks

It is useful to mark out bays to be used by taxis at town centres, stations and other key places, even if there are no other on-street parking controls. This helps to bring taxis and their potential customers together, and to avoid random parking by taxis. The use of taxi ranks in controlled areas should be monitored from time to time as spaces that are little used might be reallocated for other purposes. The Regulations (4) introduced a wide yellow stripe to indicate which taxi bays prohibit stopping, not just waiting, by other vehicles.

Footway crossovers

The policy approach to crossovers is discussed in Chapter 6. It will be necessary in addition for local authorities to consider the knock-on effects when on-street parking controls are introduced.

Where parking controls are introduced householders frequently seek crossovers to allow parking in front gardens in order to avoid the restrictions, or the residents' permit charge. When introducing parking controls in residential areas that do not have off-street parking it is, therefore, useful to consider whether further planning controls are necessary to prevent the construction of crossovers. In Conservation Areas this can be achieved by making an Article 4 Direction under the Town and Country Planning Acts.

New crossovers should be introduced sparingly, if at all, in areas with significant pedestrian movement. A maximum pedestrian flow could be decided above which new crossovers would not be allowed.

It should be noted that crossovers provide the only legal authority for driving on the footway, to gain access to premises. Where they are permitted they must be constructed by the highway authority, or to its specification, with the costs being reimbursed by the applicant for the crossover. Statutory Undertakers have to be consulted to ensure protection of buried plant. Planning consent for a new crossover is only required on a classified road.

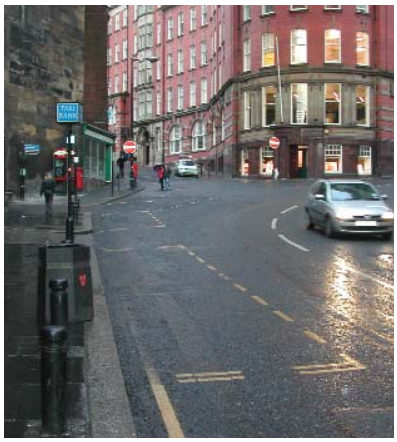
Sports Stadia

Sports stadia are often located in areas where resident parking schemes are not normally required, or do not cover the time period when matches are held. In these cases a match day parking scheme can be introduced. The signing and management of such schemes can be complex and local authorities considering a match day scheme should take advice from authorities with existing schemes and from the Department for Transport in England, the Welsh Assembly in Wales and the Scottish Executive in Scotland.

Planning the implementation of major Parking Control Schemes

The team for implementing a project requires a wide skill base. If an authority is to implement Decriminalised Parking Enforcement and a Controlled Parking Zone, they cannot pass

Improvised cycle parking – Westminster.



Taxi rank: on-street provision.

Matchday restrictions – Watford.

the whole process out to consultants, although consultants can provide important skills and resources. Ultimately the authority has responsibility for running the operation itself, whether by contract or direct labour. Consequently the team will need to comprise officers other than just from the engineering and traffic management department. The council's lawyers, auditors, human resources, public relations and member services officers are all going to be involved in the longer term. A comprehensive project team, therefore, has to be established at the start, with a close relationship with the councillors concerned, if the project is to be effectively managed and achieve Best Value.

It is important that the team works to the parking business plan that is prepared as part of the Parking Strategy (see also Chapters 4 and 10).

Budgetary requirements are a further constraint. Both capital and revenue expenditure have to be planned into the annual budgets of an authority. For bids to be assessed, officers will normally need to have a clear idea of their future estimates at the beginning of the calendar year. If Local Transport Plan expenditure is involved, submissions have to be made in July for the forthcoming financial year.

Major schemes must be the subject of consultation with the people affected, and it will be necessary to communicate information about the scheme before, during and after its implementation on the ground. Guidance is provided in Chapter 8.

References

(1) British Parking Association, Unpublished Report at BPA Seminar March 2003.

(2) British Parking Association, The secured Car Park Award Scheme: Guidelines for Self-Assessment.

(3) Institution of Structural Engineers, 2002, Design recommendations for multi-storey and underground car parks (3rd edition).

(4) Traffic Signs Regulations and General Directions.

(5) MVA, 1992, South East Birmingham Study for Birmingham City Council.

(6) Collis, HA and Read MJ, 1986, A cost/benefit study of Parking Enforcement PTRC Summer Annual Meeting.

(7) CROW, 1993, Sign Up for the Bike: design manual for cycle-friendly infrastructure, Netherlands.

(8) Government Office for London, 1998, Traffic Management & Parking Guidance for London

(9) Civic Trust, County Surveyors' Society, Department of Transport, 1990, Lorries and Traffic Management: A Manual of Guidance for Local Authorities and others, The Stationery Office.

(10) DLTR, 2002, Traffic Advisory Leaflets 02/02: Motorcycle Parking

(11) The Institution of Highways & Transportation, 1996, *Cycle-friendly Infrastructure: Guidelines for Planning and Design*, endorsed by the Department of Transport and the Cyclists' Touring Club.

Butler, PE and Allan, MG, 1991, Red Routes in London, PTRC Summer Annual Meeting.

Collis HA, 1991, The Red Route scheme - Design and Implementation, PTRC Summer Annual Meeting.

DTLR, 1993, Traffic Advisory Leaflets 04/93: Pavement Parking.

DTLR, 1995, Traffic Advisory Leaflets 05/95: Parking for Disabled People.

DTLR, 2001, Traffic Advisory Leaflets 02/01: Bus-Based Park & Ride.

DfT, March 2000, Guidance on Full Local Transport Plans.

English Historic Towns Forum, 2000, Bus-based Park-and-Ride: Good Practice Guide, 2nd Edition, Report No.48.

Jones P, 1992, Illegal Stopping Activity at Shopping Centres on Main Roads.

Wood, K and Smith, R, 1992, Assessment of the pilot priority Red Route in London, PTRC Summer Annual Meeting.

Chapter 8 Public Consultation

What consultation is required?

There are different stages of consultation where parking issues are likely to feature:

- In preparing or revising local Development Plans or documents, or other planning documents such as supplementary planning guidance on parking in new developments;
- In preparing Local Transport Plans;
- In preparing a Parking Strategy as a sub-component of the above; and
- In promoting specific schemes requiring a Traffic Regulation Order.

It is important to determine precisely the policies or proposals where involvement and consultation is to be undertaken. Particular aspects of a scheme or a policy should, where possible, be presented as part of the wider strategy. For example, consultation on the principle of parking charges should not be consulted on as a stand-alone issue. Similarly it will be fruitless to consult on the level of charge to be applied without discussion of the wider context. (There are rights of objection to TRO changes including a change of hours, but not to simple changes to the charges.)

Why consult?

The traditional approach is to "consult" people on a policy or scheme once it has been designed. This can have major disadvantages, however, since it may be too late to change the concept in response to the consultation exercise, thus provoking criticism that the authority has already made up its mind. It is better to adopt a programme whereby people are involved at as early a stage in the process as possible. This is the key stage at which to engage public support and to "win over hearts and minds" and to seek to engage with representatives of hard-to-reach groups such as ethnic minority groups and small traders. Although such involvement can be resource intensive, it may overall be less so than having to redesign a fully developed scheme that has been rejected at the formal consultation stage, or to deal with damaging and costly court action by aggrieved parties.

Comprehensive public consultation is not just a legal issue but is a necessary component of implementing a satisfactory parking scheme. It should be embraced by local authorities as a way of ensuring that parking interventions meet the council's objectives and respond to people's concerns, and not just as a way of keeping the council out of trouble with the courts.

Consultation on a Parking Strategy

Preparation of a Parking Strategy is set out in Chapter 4. A decision will need to be made as to whether the public involvement and consultation should be separate or part of the Development Plan or Local Transport Plan process. The questions to be addressed include:

- Are the parking issues likely to be sufficiently complex or contentious to justify a separate consultation?
- Is the preparation timetable compatible with other consultation programmes?
- Is there a danger of "consultation fatigue" if separate consultations are undertaken simultaneously or consecutively?
- Is the content too detailed and specific to be included in consultation on broad policy issues?

The content, in particular, may need to be adjusted in order to enable an appropriate public involvement programme to be carried out. For example, the split between the policy, scheme and management elements may be important. For example, it may be simpler to undertake a separate consultation on parking if the broad policy issues have been dealt with in the local Development Plan and Local Transport Plan processes.

Consultation on parking control Schemes

Statutory consultation on individual Traffic Regulation Orders will need to be undertaken separately and particular care must be taken when doing so. The Road Traffic Regulation Act 1984 requires authorities to publish proposals for traffic orders and to consider any objections received before confirming the orders. The orders have to be published in a local newspaper and street notices should be displayed in the areas affected. Six weeks are allowed for submission of objections. Whilst the statute law does not require any further public consultation, the courts have determined that there should be earlier non-statutory consultation in certain circumstances. Residents in the Primrose Hill area of Camden (London) sought a judicial review of a proposed resident parking scheme on the basis of insufficient public consultation, and were successful. (1)

Internal organisation and consultation

Good channels of communication will also be essential within the authority, for example between leisure, tourism, corporate policy, planning policy, legal, finance, press office and the parking strategy teams. County and district councils will need to cooperate to ensure compatibility between on-street and off-street policies.

Valleley (2) suggests "the development of an organisational structure which allows all of the officers from the various departments who are involved with parking policy formulation, management, operation and enforcement to be unified". This would help to overcome many of the organisational difficulties experienced in developing a cohesive Parking Strategy. Alternatively, Valleley suggests that by "placing all responsibility for developing and implementing a comprehensive parking policy in a single local authority department" a unified structure could be achieved, but this would be more applicable to a unitary authority rather than within a two-tier local government structure. At the very least, some arrangement (such as a working group) should be established to ensure that parking is not treated in isolation.

Elected Member involvement

The stages involving elected Members are set out in Chapter 4.

Planning a scheme consultation

Consultation needs to be carefully planned and managed. The aim is to obtain the best scheme in accordance with the priorities of the Authority and the affected parties. The process may start with a view that a particular approach is required, but must be sufficiently flexible to manage changes in the approach, even radical changes, if the consultation process indicates that change is needed. A defined project group should be established, which would normally include council Members, and the appropriate senior officers as well as professionals with skills in managing the consultation process and getting the best results from it. Some consultants will have these skills, but they will need to be blended with an understanding of the local politics and public attitudes, and the personal contacts with the local stakeholders and media. The council's public relations department is, therefore, an essential part of the team, and it may on occasion be desirable to secure the services of external public relations advisors with suitable experience.

It is important to remember that a public consultation is one of the occasions when a local authority is very visible and gets very close to the local community. The performance of the authority is often judged by the contacts made during such consultations. Likewise, consultation on parking issues can be affected by contact between the council and the public on other matters.

Experience suggests that the success of public consultation and involvement depends not only on the appropriateness of the procedures themselves, but on the general standing of the local authority with the communities it serves. If there is general distrust or unrest concerning aspects of the authority's work, this can bubble to the surface during any specific consultation exercise and parking is a particularly vulnerable topic because it affects everyone.

From all these standpoints it is important to:

- Plan consultation carefully;
- Make adequate provision of resources; and
- Remain flexible and responsive.

Improving the scheme through consultation

Where a large or complex on-street parking scheme is proposed, such as the introduction of a CPZ in a town that has not had such controls before, consultation is necessary to:

- Determine the acceptability of proposals; and
- Shape the scheme.

It is essential to produce a proposal before undertaking widespread or detailed consultations using, for example, leaflets and exhibitions. This should be easy for people to understand, if they are going to be able to contribute effectively to the process. It may take several rounds of amendments to fine-tune a scheme, but willingness to respond to local views should be viewed positively.

It is important to keep the lines of communication open during implementation of a scheme to provide information and to deal with issues of disruption.

People responding to a consultation are primarily concerned with how they are personally affected. It is, therefore, necessary to set out the context of a scheme and how it would work, and how conflicting priorities would be balanced.

Questionnaires need to be carefully designed. Below are some do's and don'ts.

Do explain:

- What scheme is proposed and its purpose;
- The area affected, preferably with a map;
- How it will operate, including likely charges;
- The changes that will be made compared to the present situation;
- What happens next; and
- The action that the recipient is expected or able to take.

Do ask for:

- Comments or opinions about any of the above points;
- Information about the household's vehicle ownership;
- Comments from interested people other than householders (e.g. local businesses);
- Comments about how the responded thinks he or she will be affected by the scheme; and
- A contact address or telephone number in case follow up is necessary, and to avoid fraudulent returns.

Don't ask:

- What the parking or permit charges should be;
- About personal information that is not directly relevant to the consultation; and
- For opinions on a collection of measures; it is preferable to be able to identify precisely which aspects of a scheme are liked or disliked.

In addition to leaflets and questionnaires that are aimed at all those affected, a market research exercise should be considered whereby in-depth interviews are undertaken with a limited number of people. Data on existing patterns of parking in the area or in other parts of the local authority area can help both in conducting such an exercise, and in understanding the significance of the results.

For large schemes specialist help may be required for the consultation process. Council officers will need to guide elected Members on the effects on public opinion of such matters as operative hours, location of restrictions, the tariff structure, and permit rules.

A number of issues are likely to feature prominently in the consultation process, including:

- The extent of the control area;
- Displacement of the parking problem from the newly controlled area to adjacent areas – the knock-on effect of drivers finding the next available free or uncontrolled parking opportunity (see Chapter 7).
- The allocation of kerb space between different types of user, such as pay and display, residents' or business permits, loading, and restricted parking; and
- The issue of whether charges will be made, and if so at what level.

Once the scheme has been agreed or amended as necessary, a formal period of consultation is required for the Traffic Regulation Order (TRO). This will be at least for the 21 day statutory consultation required for TROs. Again, good public relations should be committed to the exercise to ensure that adequate levels of awareness have been raised. This too is iterative and if significant objections remain unresolved, the scheme may require amendment and re-consultation.

Handling objections to TROs

It is unlikely that all objections can be accommodated and so it is important to ensure that once all opinions have been fairly considered and a decision reached, the council should communicate this decision. The public needs to know what changes are to be made and the timetable for their introduction.

It is an important part of the TRO order-making process that the order-making authority has to consider objections to the order before confirming it. Any comment or suggestion that is made in response to a consultation should be fully considered and provided with a reasoned response. To simply reject an objection or alternative proposal because it does not conform to the council's current thinking or policy is inadequate. The objector's view must be considered, given full weight and, if it is in conflict with current policy, the policy itself must be reviewed and shown to be still valid.

A report on objections should be prepared by the technical advisors to the authority, with copies of all objections made available to elected Members to inspect. The Members are better able to discharge this statutory process effectively if they have been closely involved in the non-statutory consultation process.

The consultation timetable

Implementing a major scheme requires substantial resources, and has to be planned, programmed and resourced. In preparing the programme there are a number of constraints that need to be considered:

1. Extensive consultation should not be carried out in the school holiday periods, as this may produce a response that people are disenfranchised.

2. The political and seasonal calendar should be addressed. It is unlikely to be acceptable to

councillors to conduct a consultation or introduce a controversial scheme in a pre-election period. It is also undesirable to make major changes to parking in town centres or other shopping areas in the Christmas shopping period, which generally builds up from the autumn school half term. In a tourist area, it may be undesirable to make changes in July and August.

Due to these and other factors, the "windows of opportunity" for both consultation and scheme implementation are limited. Table 8.1 illustrates periods that can be relatively problem-free, although the local authority must be aware of other factors such as local festivals and variable school half-term dates.

Where a developer funds the introduction of a CPZ under a planning contributions agreement, it is necessary to seek approval before the development is brought into use, bearing in mind that it is the Council, not the developer, who implements the parking controls.

These constraints need to be built into the project programme. It also has to be recognised that one month of slippage of the programme can result in many months of delay in implementation. It is important that all parties to the process (council Members and officers, and any consultants and contractors involved) are aware of the nature of these constraints. Failure by any party to meet the programme can cause serious delays, resulting in lost revenue, extended periods of disruption on the streets, and other problems.

Consultation fatigue

A further important factor to be borne in mind is the timetable of other consultation exercises being undertaken especially those that are related to parking, such as the Local Transport Plan. Local authorities should aim to dovetail different consultation programmes, and try to avoid "consultation fatigue", and confusion on the part of consultees.

Table 8.1 Preferred times for parking scheme consultation and implementation.

	Consultation	Implementation
January	✔	✔
February	✔	✔
March	✔*	✔*
April	✔*	✔*
May	✔**	✔**
June	✔	✔
July	✔***	✔***
August	✘	✘****
September	✔	✔
October	✔	✔
November	✔	✔
December	✘	✘

* But avoiding Easter school holidays

** But not in election years

*** But avoiding school holidays

**** But may be preferred in areas with student housing and facilities

Post implementation review of schemes

Controlled parking schemes are complex and can cause varied impacts on many people. It is not always possible to predict these impacts, and even where there is an extensive consultation process, many people do not appreciate the effects and therefore do not make an informed response. It is, therefore, good practice to have a comprehensive review after implementation. Such consultation should be conducted six to twelve months after the scheme is introduced (see Table 8.2).

During this period, feedback should be sought from the consultative forum and possibly from the wider public to gauge how successfully the parking strategy has been received and to seek opinions on any amendments that should be implemented. The cost and resources of monitoring the strategy and of undertaking the review process should be incorporated within the budget for the strategy. The initial review will include a number of elements but will essentially be fine-tuning of the existing regulations. More significant changes such as extensions to the CPZ or modifying charges

should be left until the scheme has settled down.

A firm commitment to a post implementation review can be helpful in dealing with objections to the implementation of the initial scheme. Many consultees raise concerns and problems that could unnecessarily complicate the scheme if changes were made to accommodate them. Often these concerns are not well founded, for example, when it is known that they have not arisen in other similar schemes. A post-implementation review can also provide a genuine route for considering a response to any unforeseen problems that arise.

Authorities should take early action if such unforeseen consequences are causing unexpected hardship. The use of experimental orders may be useful in these circumstances with reviews afterwards, before permanent implementation. Otherwise changes should not be made until the scheme has become established.

User satisfaction

Exercises such as Best Value reviews should provide good evidence of customer views.

The review in West Sussex (2001) provided interesting evidence of user satisfaction on three Controlled Parking Schemes which had been established for one, five and ten years respectively.

The survey was undertaken by sending questionnaires to holders of Residents Permits on renewal, handing them to visitors at Parking Shops, sending them to local forums, placing them on the windscreens of vehicles parked within CPZs and also on those vehicles parked in the areas immediately surrounding the CPZs. In addition a small number of face-to-face street interviews were held in town centres and the questionnaire was available on the County's website.

This survey revealed that, in the three towns, overall levels of satisfaction with on-street parking schemes varied and suggested a correlation between the age of the scheme and the overall level of satisfaction with it.

Length of time that scheme had been operational:	% Satisfied:
1 year old scheme	43%
5 year old scheme	54%
10 year old scheme	68%

Even in the longer established schemes the main reason for dissatisfaction was enforcement, or lack of it. These results suggest that, whilst there may be a low level of satisfaction immediately after implementing a scheme, the level of satisfaction should grow over time. Though the reasons for this were not established, the implication for those promoting parking schemes is encouraging – albeit requiring a long-term view!

Higher levels of satisfaction have been achieved earlier by other schemes. The extension of Chichester's CPZ in 1994 saw the introduction of a zone with a one hour a day parking restriction, on an experimental basis, in order to address issues of displaced parking. Within two months of the scheme's implementation, levels of satisfaction in excess of 85% were recorded in an after-survey of residents.

Provided that schemes are well managed, maintained, up-dated or amended in response to changing circumstances, public satisfaction can increase over time, as demonstrated in West Sussex. On the other hand, if a scheme is neglected or is no longer appropriate then businesses and residents may have increasing cause for complaint. In particular, traditional "blanket" yellow line controls are rarely appropriate in areas where it is important to allocate kerbside space between different users.

Consultation techniques

The techniques to be employed will vary with each type of consultation, not only because of differing levels of detail required, but also because of differences between statutory and non-statutory requirements. Broad recommendations are provided in Table 8.2, but it is important that local authorities should decide what is appropriate to meet the particular circumstances (see also Figure 4.1).

Two important distinctions can be made between different consultation techniques. First, some techniques are appropriate for ongoing consultation (such as a Forum) while others are "one-off" techniques (such as an exhibition). Second, techniques vary as to their suitability for consulting targeted groups and individuals or for consulting a community in general.

1. Stakeholder groups

Stakeholder groups are crucial to effective public consultation. Local authorities will need to ensure that all relevant interest groups and their representatives are included. These include various categories:

- Local Councils, residents' associations primarily concerned with the amenities of their locality and other local associations with a general interest such as Conservation Area Advisory

Committees and historical societies;

- National bodies, such as the Council for the Preservation of Rural England and the Civic Trust, who may have or want local representation;
- Organisations representing local businesses, such as the Chamber of Commerce, and local representatives of bodies such as the Freight Transport Association, Road Haulage Association, the Highways Agency, and the Confederation of British Industry;
- Public transport operators and providers;
- Organisations with a social or caring role representing people with a disability, older people, and ethnic minority communities;
- Community organisations such as churches and other religious groups, sports clubs, rotary clubs, playgroups, etc;
- Schools, parent teacher associations, hospitals, universities and colleges, residential homes, etc;
- Police, fire brigade, ambulance service, coastguard and any other organisations concerned with public safety and security; and
- Representatives of transport campaigning bodies such as Living Streets, Cyclists' Touring Club, The Environmental Transport Association, Automobile Association, Royal Automobile Club Foundation and any local commuter clubs.

Not all of these groups will be relevant to a particular area, nor will they necessarily need to be consulted at every stage of the process. Consultation with these groups is best undertaken by letter, as they will normally require to consult internally before responding, and wish to make a written response. Where meetings are required it may be appropriate for a representative of the Council to attend. People attending meetings of stakeholder group on behalf of a Council, whether Members, officers or consultants, should limit their contribution to explanation of the council's policies and proposals, and giving advice on technical issues. They should be briefed to ensure that commitments are not offered without Council authorisation.

Table 8.2 Consultation techniques recommended at different stages.

	Strategy and Policy formulation	Scheme formulation and design	Formal consultation on TROs	Scheme Review
Targeted				
Stakeholder groups	✔	✔	✔	✔
Forums	✔	✔	✘	✔
Focus groups	✔	✘	✘	✘
Stated Preference surveys	✔	✘	✘	✔
Structured questionnaires and interviews	✔	✔	✘	✔
Non-targeted				
Consultation leaflets	✔	✔	✔	✘
Exhibitions	✔	✔	✔	✘
Public meetings	✘	✘	✘	✘
Press and other publications	✔	✔	✔	✘

At stakeholder meetings it is important to have presentation material to help explain council's policies and proposals. The format will depend on the nature and size of the meeting, but might include annotated plans and photographs, or might involve a multi-media presentation. In preparing for such meetings it is important to know in advance about who will be present and what interests or groups they represent. Establishing this in advance is reasonable as it ensures that the local authority provides the people who are best able to respond to questions and concerns, which is to the benefit of all concerned.

Where meetings are held with local groups such as a residents' association, it may be appropriate for officers or consultants to represent the Council. Such meetings should be informal and informative. If they are advertised as a "public meeting" with the Council representatives on a platform

being subject to possible political hostility, it is important that these should be treated as open public meetings and managed by the politicians.

2. Forums

Sometimes a suitable forum will exist; otherwise local authorities should consider setting up a forum that can deal with parking and other transport matters.

Forums can be set up to engage a wider set of interests than just stakeholders, and this may be particularly useful in developing and reviewing schemes. Forum meetings can be held to build a consensus on the type of scheme required that would meet the objectives set out in the parking strategy or other documents. The wider community can be kept informed of the deliberations through a newsletter circulated within the community.

Once a scheme has been developed with the involvement of the forum, it can be put out for public consultation, in line with statutory obligations.

3. Focus groups

Focus groups are specially recruited groups of people, usually with some common interest, who are brought together to discuss policy issues. They are frequently used in market research and can provide valuable insights into public reactions. They are not usually used in developing parking schemes and proposals, where broader representation is normally needed, but they can be useful where innovative schemes are being proposed. Focus groups were used, for example, to explore reactions to a proposed City Car Club involving the use of dedicated on-street space for club vehicles.

Focus groups need to be planned and moderated by professionals trained in the use of such groups.

4. Stated Preference surveys

Stated preference surveys are often used in transport planning, mainly as a means of establishing coefficients to calibrate mathematical transport models. The surveys use in-depth interviews where the subjects are required to make trade-offs between different options. They are an important part of building models of parking behaviour and require specialist advice to plan, administer and interpret.

It is important that respondents understand the range of propositions being put to them. If a proposed scheme involves aspects with which respondents are unfamiliar, such as the first residents' parking scheme in a town, it is unlikely that people will give answers that will reflect their actual behaviour once a scheme is introduced. Proposed schemes may initially attract adverse comment, but receive firm support once the benefits have become clear after implementation.

5. Structured questionnaires and interviews

Questionnaires are often included in leaflets for general consultation on parking schemes. They can also be used in a targeted way either to get responses from specific groups of people, such as local traders, or to achieve responses that are statistically robust through the use of structured samples, for example 10% of residents in a scheme area.

Because of typically low response rates from postal questionnaires, achievement of a statistically significant sample will normally require door-to-door interviews.

6. Consultation leaflets

The commonest form of consultation on parking schemes is a leaflet distributed to residents and businesses in the area concerned, usually with a questionnaire for return to the Council. Use of such leaflets is

expensive, as they have to be designed, printed, distributed, and the results of responses analysed. Leaflets should be clear, contain legible plans, and be free of jargon. They should put forward the Council's draft proposals clearly and precisely. Most respondents are interested in how the scheme will affect them personally, and they should be able to understand that from the leaflet. Where additional information needs to be supplied, like more detailed plans, this should be deposited in Council offices and libraries, preferably on display boards so that people can consult them.

The area covered by leafleting must be carefully considered, bearing in mind that parking is used by visitors to an area as well as local residents and businesses, and that parking may migrate beyond the boundary of a scheme once it is introduced.

It is important to ensure full distribution of leaflets. One of the main complaints is that people did not receive the material. Free newspaper distributors frequently have only 50% coverage. They find it particularly difficult to ensure that every household receives a copy of the leaflet in blocks with entry phone systems.

The most effective way of ensuring comprehensive coverage is to distribute addressed envelopes, using the Council Tax and Business Rates registers for the addresses, and arrange distribution by post. There are mailing companies, which will stuff, address and frank the envelopes. The Post Office is the most reliable way of ensuing full coverage, as postmen have good knowledge of all addresses, and an obligation to seek to deliver if there is a problem, and return if no delivery can be made. It is possible to get the Post Office to deliver unaddressed mail, and this is less expensive, but they normally require considerable notice and will not guarantee the date of delivery.

If the Post Office cannot be used then an alternative is to get one of the established traffic survey companies to arrange delivery, using a database of addresses like the electoral roll, but also delivering to addresses not on the electoral roll. These contractors have suitable staff and supervisors to undertake this sort of exercise effectively. A sample call back to speak to householders to check that they have received the leaflet ensures that the Council is protected from criticism over its delivery arrangements. This sample will never be 100%, as the leaflet may have been picked up by someone other than the person answering the door, but confirmation from 90% of households in an inner city area has been achieved using a traffic survey contractor.

Whatever delivery system is used, it is advisable to publish back-up material in the local press. The material should go in parallel to elected Members.

The reply coupon should be kept simple. If there are a lot of questions the results become difficult to analyse and response rates are lower. Too many prompts about possible options also mean that it is difficult to assess the issues that most concern respondents. If a single proposal is presented the most effective way is to ask the question "are you generally in favour of the proposals?" with a yes/no answer, followed by "do you have any comments that you wish to make", with a large white space for the response. Respondents should also be asked for their name and address.

If "profile" questions are included, such as car ownership or trip-making habits then people may be concerned about confidentiality and anonymity. If only opinions are sought, this may be less of an issue.

There is no standard template that can be used for such communications. It is vital that local authorities should design leaflets and forms that are tailored specifically to match local conditions and requirements. Given the statutory responsibility to consider each case on its merits there should be no 'standard' letter, even if similar schemes have been undertaken before. "Cut and paste" should be no substitute for "think and write".

Local authorities should not rely on just their technical staff to plan, design and carry out the consultation. It is important that skilled public relations professionals are involved, whether drawn from the authority or from external consultants.

The respondent's name allows checks to make sure that people are not submitting mass responses, and the address allows analysis by street. The common responses can then be coded into a series of categories in a database, with any other particular concerns mentioned in the report of the consultation, which is presented to members. Names of respondents should be kept off the database to avoid breach of the Data Protection Act.

The simple yes/no question gives comfort to Members of the Council when there is a clear majority in favour, and the opportunity to reconsider when there is a clear majority against. Analysis by street allows the scheme to be modified if opposition is in one particular area. Experience shows that people on the fringes of proposed CPZs will not express support if they do not have a serious common problem, even where it is apparent that parking will be displaced into those areas if a smaller CPZ is introduced.

It is recommended that responses should be filed by street and number order, to highlight any multiple responses and enable checks to be made against council tax or electoral registers if there is concern about false responses. Similar precautions may be taken with any petitions received. The response files can be made available to Members of the Council before the meeting at which the response to the consultation is to be considered.

Most local authorities will have a policy about making material available in languages other than English, and it is important that this is followed. Consultation material can also be made available in Braille and large print format to help people with a visual impairment.

7. Exhibitions

Along with leafleting, exhibitions are the commonest form of consultation on parking schemes. They are expensive to mount, however, and need to be carefully planned. The questions for a local authority will include:

- Is it appropriate to hold an exhibition?
- What sort of material should be presented?
- What venue is appropriate?
- Is the venue accessible by people with mobility difficulties, and if not how can such people access the information?
- What should be the period and times of opening?
- What level of staffing will be required?

Where a scheme is large or complex, such as the introduction of a CPZ in an area where there are no such controls at present, it is important to have an exhibition where the traffic engineers can be present to explain the reasoning behind the proposals and their likely effects. If the area is large, it may be necessary to hold the exhibition at several venues. Venues should be accessible and known to the public. Schools, community centres, parish halls, libraries and Council offices are normally used. Sometimes there are areas within shopping centres that are available, and

suitable for consultation on citywide concerns, but they are often not suitable for addressing more local issues.

Care should be taken with the use of religious buildings, since people of different faiths may be deterred. Such buildings may be appropriate when they are known for non-denominational community use.

If those primarily affected by a parking scheme are car owners, it may be acceptable to have a single venue covering a wider area if adequate free parking is available, such as a school and associated playground outside school hours.

A wide range of people (including employed people) should be able to attend, albeit without creating an undue burden on exhibition staff. An example would be from mid afternoon to early evening on a weekday (say 3pm to 8pm) and during the middle of the day on Saturday (11 am to 4pm).

It is recommended that exhibitions should not be open for more than five hours on any day, as the work is very demanding for the professionals involved. The arrangements should be such that the staff at the exhibition are properly briefed and have sufficient support if difficult or confrontational situations arise.

When consultants are managing the consultation, it is essential that Council officers are also in attendance. Questions often arise that are outside the scope of the consultation and a council officer will be able to answer such questions or be able to take the matter back and seek a response from the appropriate part of the Council.

8. Public Meetings

Public meetings are an ineffective method of obtaining information for the development of a parking scheme. Effective consultation requires the dissemination of quite detailed or technical feedback from the people likely to be affected by the scheme. It is difficult to get information across in a public meeting, while a few activists with preconceived views can easily dominate feedback.

Public meetings tend to provide a platform for organised interest groups who are already very capable of making their views known by other means. If it is still felt to be necessary to hold a public meeting, the local authority should be represented at a political level. Officers and consultants should be present only to make technical presentations and to advise the meeting on technical matters.

9. Press and other publications

Involving the local media is a key part in keeping the public informed, as frequently it is the only way in which local people are aware of what is being proposed. It is important to share with the local media what is happening and the reasons for it. This should be seen as a continuous process of informing the press rather than an “one-off” exercise at the start of the intended scheme. It may be helpful to consider paid advertisements in the local press, regular media releases and information packs.

References

(1) Regina V Camden, London Borough ex Parte Mark Dyson, Gordon Cran, and Others, 1995 (colloquially known as the “Primrose Hill” case).

(2) Valleley, M 1997, Parking Perspectives. Produced by the University of Westminster Transport Studies Group.

Chapter 9 Compliance and Enforcement

Introduction

Compliance here refers not just to compliance of Local Authorities with national and regional guidance, and compliance of private companies with a range of planning and other rules, but also to drivers abiding by parking regulations.

Local Authority compliance

Policies laid down by national and regional government encourage interventions at the local level to manage the use of the car. Local authorities have embraced such policy guidance with varied degrees of enthusiasm.

The Government has scope to improve the level of compliance in a number of ways:

- Providing more detailed guides to best practice;
- Providing mentoring and practical assistance as a means of "capacity building" at the local level;
- Reviewing Local Transport and Development Plans (or supporting documents) for consistency and compliance with national and regional policy;
- Allocating transport funds in a way that favours local authorities who can demonstrate compliance with policy;
- Withholding "excellence" or "beacon" status from local authorities that pay scant regard to national and regional policies and priorities.

Local Authorities must also comply with the duties and procedures laid down in the various highways and parking enforcement legislation, with Government Guidance on Decriminalised Parking Enforcement, and to other relevant legislation, for example the Human Rights Act 1998 and the Disability Discrimination Act 1995.

Private Sector compliance

Local authorities, whether or not in partnership with other agencies, need to encourage private car park owners and operators to conduct their business in line with planning, traffic and other regulations. The key issues are likely to be:

- Compliance of private operators of public car parks with the terms and conditions set down in local authority contracts, such as tariff structures and charges, and security requirements;
- Compliance of private developers with planning conditions and agreements concerning the amount and operation of parking associated with new developments.

In both these cases compliance will depend not only on the

private company's willingness, but also on the clarity of contracts and conditions drawn up by local authorities, and the mechanisms for monitoring compliance. The new BPA model contract, for example, focuses on the effectiveness of enforcement activity rather maximising ticket numbers.

It must be borne in mind that parking enforcement contractors are acting as agents for the Parking Authority and the Council is accountable and liable for the actions of the contractor.

A particular issue is ensuring that the maximum amount of parking provided in new developments is clearly specified in the planning permission, checking that this has been complied with following completion, and taking action to enforce any breach of conditions.

Parking Regulations – compliance and enforcement

Traffic Regulation and Management Orders provide the means of managing traffic and parking; charges can be used as a means of rationing or prioritising the use of space for parking. The role of enforcement is to create a fair balance between the overriding objectives of local and national transport policies and the rights and needs of motoring citizens.

The basis of enforcement

The original powers of enforcement of parking regulations were part of the criminal law system and involved the police and magistrates' courts. As illegal parking grew with increasing car ownership and use, it became clear that, with the other calls on Police time, they would not be able to provide the resources needed to match the growing demands for enforcement. Therefore, in 1991 the Road Traffic Act (RTA) enabled Councils to take responsibility for parking enforcement from the police in a civil rather than criminal regime, (see Chapter 3). The RTA scheme became compulsory for London Councils in 1994, with Councils outside London being able to opt into the scheme from 1996. The thrust of the RTA scheme is that the authority creating the parking regulations can also determine the level of resources needed for enforcement and link enforcement policies to the regulations. Experience of decriminalised parking enforcement has been positive and it is Government policy to promote it (1). It is important, however, to bear in mind that traffic regulations themselves and how they are made are not altered by decriminalised parking enforcement; it is simply that Council parking attendants enforce contraventions of the regulations in a civil rather than criminal regime.

Traffic Regulation Orders and Traffic Management Orders

In order to regulate parking a Traffic Authority has first to define formally what the controls are and, precisely, where, geographically, they apply. This is done by the creation of a Traffic Regulation Order (TRO) or (in London) a Traffic Management Order (TMO), which specifies amongst other things:

- The lengths of road controlled;
- The types of controls;
- The conditions and qualifications associated with the use of the facilities; and
- Exemptions, including the statutory ones for Blue Badge holders

Traffic Regulation Orders must be made for the purposes stipulated in the RTRA, particularly Section 122. They are governed by a formal procedure, which is set out in the Local Authorities' Traffic Orders (Procedures) (England and Wales) Regulations 1996 (2). The High Court has emphasised

that TROs and TMOs must not be made for the purposes of raising revenue.

TROs and TMOs are legal instruments and must, therefore, be precise and unambiguous. Since a parking contravention (or offence in the criminal scheme) is a violation of a provision in the TRO/TMO, rather than against the sign, it is important for local authorities to keep their TROs up to date, and not just to add layer upon layer of regulation. This is especially important in the preparations for decriminalised parking enforcement, when it becomes necessary to remove otiose provisions such as excess charges.

Many Councils use maps instead of schedules to their TROs/TMOs and it is important that any restrictions or permitted and designated parking marked on the map is completely clear as to the extent of the restrictions or the permitted parking bays. Any subsequent variation in the maps must be made in accordance with the procedures set down in the 1996 Regulations. Therefore, if a Council is proposing to alter the extent of any of the restrictions or permitted parking, the appropriate procedure must be complied with; it is not sufficient simply to issue a second version of the map. It is also important that the maps are deposited in Council offices so that members of the public can view them. Particular care needs to be taken where a Council is using special software to read the map.

The Secretary of State's Guidance on Parking (3) requires each Authority proposing to take on the DPE powers to carry out a comprehensive review of all their parking restrictions and recommends regular consolidation of orders. It is important to revise the main body of the TRO/TMO, not just the schedules.

A proper strategy

A well-conceived scheme will, by its very nature, require less enforcement. It is particularly important to ensure that:

- Charges are set to limit demand to a level where some parking spaces remain available at all times (thus reducing the temptation to park illegally);
- Signs and markings are comprehensive, clear, consistent and unambiguous, thus reducing unintentional infringements;
- Good information and marketing are provided both before and after the implementation of a control scheme, to ensure widespread understanding and familiarity with the regulations; and
- The design of the street and kerb alignments aids understanding of parking restrictions.

Signs and lines

Local authorities are required by Regulation 18 of the 1996 Regulations to sign properly the effects of all their traffic orders. Restrictions and controls on parking must be marked and shown as prescribed in the Traffic Signs Regulations and General Directions 2002 (TSRGD) (4). The importance of correct marking cannot be overstated since it has been established by the High Court that unless the markings comply fully with the TSRGD (or are specially authorised by the Secretary of State), the regulation has no legal weight and cannot be enforced. Further, the regulations and markings must be unambiguous.

Councils may introduce a scheme, which requires different signs from those specified in TSRGD, if they obtain formal authority from the Secretary of State for the signs and the scheme. Examples of this are restricted zones, signs for which do not appear in the TSRGD.


Confused markings for a bus stop bay.

Decriminalised Parking Enforcement (DPE)

The Road Traffic Act 1991

The future of parking enforcement lies with the decriminalised system introduced by the Road Traffic Act 1991 (RTA).

The RTA was brought into effect for all 33 of the London Local Authorities on the 4 July 1994. Prior to that, in 1993, 5 Councils had taken on the powers. The main provisions of the Act are written in respect of London but Schedule 3 enables Councils outside London (including Scotland) to take on the powers. The first Council outside London to do so was Winchester City Council in 1996. Edinburgh was the first Authority to adopt the scheme in Scotland and Neath Port Talbot the first Welsh Council.

For a Council to adopt the DPE powers it must be granted a Permitted Parking Area/Special Parking Area Order (PPA/SPA). Councils in England must apply to the Secretary of State for Transport, Councils in Wales to the Welsh Assembly and Councils in Scotland to the Scottish Executive.

However, while the RTA scheme introduces the two new concepts of the permitted parking area and the special parking area, the difference in the concepts has become increasingly academic. Consequently the Traffic Management Act 2004 will remove the differentiation making each area simply a Civil Enforcement Area.

See Chapter 3 and Annex B for more information about this legislation.

The Traffic Management Act 2004

The provisions in the Traffic Management Act (TMA) bring London, England and Wales together into a single civil enforcement regime (but preserving the different arrangements for adjudication). It has added the additional minor traffic offences which London has already decriminalised for example bus lanes, yellow box junctions, no right turns, and one way streets. Thus civil enforcement will be used for contravening a sign as opposed to a TRO/TMO.

The TMA will repeal the RTA DPE provisions for England and Wales (but not for Scotland), absorbing the procedures, particularly owner liability, into new regulations to be made by the Lord Chancellor. The TMA cannot be brought into force without those regulations.

The Secretary of State will issue new Guidance in respect of civil enforcement, updating the DPE Guidance in the light of experience and changing times (5).

See Chapter 3 and Annex B for more information about this legislation.

The Road Traffic Act Scheme

A parking contravention is a contravention of a provision of a TRO/TMO, which would have been a Road Traffic Regulation Act (RTRA) offence in the criminal scheme. The RTA provides for Council parking attendants to issue Penalty Charge Notices (PCNs) to stationary vehicles contravening the specified provisions.

A particular feature of the decriminalised (civil) scheme is owner liability for payment of penalties. This contrasts with the criminal scheme, which is driver liability, albeit with a presumption that the owner was the driver.

In 1995 off-street parking was brought within the scope of the RTA powers. This included off-street car parks, off-street loading areas, and also added temporary orders to the lists of contraventions, which can be enforced by a PCN.

London introduced the enforcement of bus lanes through the London Local Authority Act 1996 and this

power is included in the Traffic Management Act 2004, which extends the civil enforcement jurisdiction to various moving traffic offences including no right turns and yellow boxes in addition to bus lanes. The Traffic Management Act, which applies to England and Wales, but not Scotland, will require regulations to be made by the Lord Chancellor with respect to enforcement and the appeals process.

Contrasting the DPE scheme with the criminal scheme

Under the criminal system parking enforcement involved a number of different agencies: local authorities making the regulations, the police enforcing them in the criminal system, magistrates deciding the disputes and the Treasury taking the fines. There was little contact between the different organisations.

Table 9.1 Differences between the Criminal Scheme and the DPE 1Civil Scheme.

	Criminal Scheme	**Civil Scheme - RTA 1991**
Traffic Regulation Orders Traffic Management Orders	Made by LA under RTRA '84 powers	Made by LA under RTRA '84 powers
Enforced by:	Parking offences Police traffic wardens (and some LAs for designated parking)	Parking contraventions enforced by LA parking attendant LA Penalty charge notice
Enforcement Process	Fixed penalty notice, court summons, clamping and removing	Clamping Removing
Penalties with	Fixed Penalty without reduction for early payment	Penalty Charge 50% reduction for settlement within 14 days
Liability	Driver liability with presumption that the owner was the driver	Owner liability
Initial Challenges	Letter to police Central Ticket Offices	Representations to LA
Appeals and Court proceedings	Summoned to Magistrates' Court for trial	Appeal to Adjudicator (tribunal)
Revenue allocated	Fines (as court fines) to Treasury	Penalty Charges retained by LA
Debt Registration charge	Increased fine registered at magistrates' court (both bailiffs' warrant and imprisonment available for default)	Increased penalty registered at county court (bailiffs' warrant)

Parking Charges

There are two types:

1. **Parking Charges set by the TRO/TMO making process.** These are the charges that are made for parking, either on the street or off-street, and are set by means of the TRO/TMO making process by the Council concerned.

2. **Additional Parking Charges** introduced in the RTA and comprising the penalty charges and any charges made for releasing vehicles that have been clamped or removed, including storage charges. There are regional variations in the process for setting additional charges:

- In London the additional parking charges are set by the Joint Committee of the 33 London councils in accordance with a scale of charges stipulated by the Mayor;
- In England each parking authority is under a duty to set their charges based on a scale of charges imposed by the Secretary of State for Transport. (See the Section 73 RTA modification in each outside London PPA/SPA Order.);
- In Wales the parking authorities set their charges based on a scale imposed by the Welsh Assembly; and
- In Scotland the parking authorities set their charges in accordance with a scale set by the Scottish Executive.

(The slightly different arrangements come through the modifications to the RTA made by the PPA/SPA Orders.)

Removing and immobilisation

The RTA gives parking authorities the power to immobilise (clamp) vehicles in addition to the issue of a PCN. While the RTA omitted to give Councils the powers to remove vehicles in these circumstances, the position was rectified by Regulation 5A of the Removal

and Disposal of Vehicles Regulations 1986 (6).

Both clamping and towing away are discretionary powers and should be exercised with care and in accordance with a published policy of criteria and priorities. These policies must in themselves be created with a view to proportionality, bearing in mind that the Human Rights Act now applies and a public authority must have good reason to penalise a citizen by interfering with his or her possessions, in addition to issuing a PCN. Government Guidance is emphatic those removals should not be ad hoc and that an experienced parking attendant should oversee the removal to ensure that it is genuinely necessary.

Public perception of enforcement

Since the public are only too well aware that Councils retain the penalty charges under the civil scheme, unless enforcement is undertaken with utmost integrity within the context of transparent and clearly published policies, the enforcement activities of the Council may be seen to be based on financial incentives rather than traffic management. Unfavourable perceptions will be particularly rife if clamping and removing are employed without regard to proportionality.

On the whole there are three types of contravening driver:

- Those who are well aware of the regulations and take a deliberate risk;
- Those who cannot immediately identify the restrictions and give themselves the benefit of the doubt; and
- Those who simply make a mistake, for example being unfamiliar with the type of restriction, being confused by ambiguous signs, or making assumptions that times and days of parking controls are universal

Each of these types will have different perceptions of parking enforcement, which will depend on how they are treated. Drivers who have made a genuine mistake will respect Council objectives more if treated at the representations stage with leniency and a warning; if not they become cynical and sceptical of council motives. The other two types need consistent enforcement to reinforce the regulations and shorten the odds they give themselves.

Taken in isolation individual acts of non-compliance usually have little measurable effect. However, when non-compliance becomes the norm, then traffic flow and safety are threatened on the highway and the financial and policy base for providing parking off the street can be undermined.

Enforcement is, therefore, necessary to ensure that parking regulations are complied with so that a system of control can operate, in the manner intended.

The enforcement procedure

If a parking attendant considers a contravention has occurred, a Penalty Charge Notice (PCN) is issued. A discount (currently 50%) is applied where the penalty charge is paid within 14 days. If the penalty remains unpaid after 28 days, a Notice to Owner (NtO) is issued to the person appearing to be the owner, usually the person registered with the Driver and Vehicle Licensing Agency (DVLA) as the keeper of the vehicle. The owner may then make representations to the Council against the penalty charge. The Council is required to cancel the penalty charge if it considers that a statutory ground is met. In summary these grounds are principally that:

- The recipient did not own the vehicle at the time of the contravention;
- The alleged contravention did not occur;

- The vehicle had been parked by someone who had taken it without the consent of the owner;
- The (traffic regulation /management) order was invalid;
- The vehicle had been hired and the person who hired it had signed a statement of liability for penalty charges;
- The penalty charge exceeded the amount applicable in the circumstances of the case; and
- (In London only) the parking attendant had not been prevented from serving a Penalty Charge Notice, where a Council believed that this was the case and so had served the Notice by post.

Where a vehicle has been clamped or removed the ownership ground does not apply, instead there are two further grounds:

- That 15 minutes had not elapsed since the expiry of paid-for time; and
- That a current disabled badge was displayed in the vehicle.

Consideration of representations

The RTA places a duty on Councils to consider representations. While the statutory duty is in respect of representations received in response to a NtO, they are also under a general duty to consider properly the "informal" representations made before an NtO has been issued. The duty to consider representations also extends to the duty to give reasons. These should specifically deal with the issues raised by the representation rather than be a standard letter.

Experience has shown that, if the first representations are responded to with a reasoned reply, there is a higher proportion of penalties settled at the discount, and the numbers of NtOs needing to be issued are reduced. It is recommended that if a motorist writes in within 14 days of the PCN then the discount is extended by a further 14 days in the reply letter.

A common problem for Councils taking on DPE is to under-resource the administrative arrangements behind the scheme and consequently become overwhelmed by the volume of correspondence and telephone calls they receive. However, if first round representations are dealt with in a cursory manner with inappropriate standard letters, it can create dissatisfaction and lack of faith in the Council's DPE operations.

Mitigation and extenuating circumstances

There will be occasions where the motorist accepts that a contravention occurred and no statutory ground of appeal applies, but he or she considers that the imposition of a penalty charge is nevertheless inappropriate and wishes to make a plea of mitigation as to why the penalty charge should not be pursued.

Councils have discretion not to pursue a penalty charge at any stage of the procedure and have, as a matter of administrative law, a duty to act reasonably, fairly and without fettering that discretion. It would, therefore, be a breach of that duty if a Council were to act unreasonably or unfairly or to fetter its discretion when considering such representations.

Care must be taken not to treat cases where a lawful exemption applied as mitigation. If a vehicle was engaged in loading or unloading, or setting down passengers, then there will not have been a parking contravention, even though the parking attendant may have been correct to issue the PCN. The Council is under a statutory duty to cancel the PCN in these

cases; it is not an exercise of discretion.

The different versions of the Secretary of State's Guidance all emphasise the importance of Councils approaching their duty to consider extenuating circumstances fairly, as has the Local Government Ombudsman in a 2004 special report (5).

Appeals to the Parking Adjudicator

If a Council rejects representations, the recipient of the Notice of Rejection has the right to appeal to a Parking Adjudicator on the same statutory grounds applying to post NtO representations.

The parking appeals procedure is free and readily accessible. There are currently three RTA parking appeals services

- **London** – Parking and Traffic Appeals Service funded by a joint committee of the thirty three London councils.
- **England and Wales** – the National Parking Adjudication Service funded by a joint committee of all the participating councils in England and Wales.
- **Scotland** – The Scottish Parking Appeals Service funded by the Scottish participating councils in partnership with the Traffic Commissioner.

Therefore each Council in London, England and Wales wishing to operate DPE must join the appropriate joint committee through which the joint functions are performed.

Parking Adjudicators, who, although they sit on their own, constitute a tribunal, must be lawyers and are judicial appointments made with the consent of the Lord Chancellor. Each of the three adjudication services is, by statute, under the supervision of the Council on Tribunals.

Appeals can be decided either at an oral hearing where the vehicle owner and any witnesses can explain their case to the Adjudicator, or simply on the documentary evidence supplied by each party. The Adjudicators function is to consider all the evidence, make findings of fact, and apply the law. This means that, where necessary they will scrutinise the TRO/TMO.

It is for the Council to make out a *prima facie* case that:

- There was a parking contravention;
- The person they are holding liable for payment of the penalty was the owner of the vehicle at the material time; and
- The penalty (or other charges) were correct.

It is for the appellant vehicle owner to prove that an exemption to the parking restriction be applied, or, if he or she was the DVLA registered owner, that they were not in fact the owner.

The standard of proof is on the balance of probabilities and there is no requirement for appellants to corroborate their evidence with documents.

If the Adjudicator finds that one of the grounds is made out by the appellant, they will allow the appeal and give directions to the Council. If the vehicle was clamped or removed, the Adjudicator will direct the Council to refund the charges paid.

Charge certificates and debt registration

If a vehicle owner decides not to pay a PCN, it is first increased in value by 50% for late payment and then registered as a civil debt at the County Court, from where a bailiff's warrant can be issued to collect the outstanding sum.

Operational issues

A properly authorised parking attendant, as defined in Section 44 of the RTA, 1991, can only issue a PCN for a parking offence.

To provide an effective and consistent service, policies need to be developed by Councils in relation to the exercise of discretion. The purpose of the parking attendant is to enforce the regulations rather than turn a blind eye. However, they will always need to exercise common sense in some situations, for example, where a vehicle is likely to be loading or unloading. In most cases where a driver pleads special circumstances the parking attendant will note what was said, advising that, if a letter is written, the person who deals with representations will consider those circumstances.

A parking attendant patrols a given area, a beat, either on foot, or sometimes by bicycle or moped. To be effective some simple rules should be observed:

- The attendant should *always* patrol his or her beat to a random pattern so that having left a street, the next visit should be unpredictable.
- The attendants and their managers should monitor what is happening on the street so that they can see where the parking behavioural problems are concentrated and deploy staff accordingly. Thus if on one beat there are very few parking problems and on another there is a local "hot spot" it would be good practice to take the attendant of the quiet area for a couple of days and focus on the bigger problem.
- Attendants should be rotated through beats regularly. This equalises the workload, by ensuring that one person is not always doing the busier streets. It also ensures that individual attendants do not become familiar with the local community, particularly traders, meaning that they are less likely to be pressurised to be lenient.

The question of how many staff to use for a given area of street controls depends, amongst other things, on:

- **The level of controls and the mix of regulations:** For example, a residential street near a station might need to be visited only twice a week to maintain an acceptable level of compliance, whereas a street with intensively-used two-hour meters may require a patrol every 30-90 minutes to maintain turnover.
- **The duration of the regulations:** For example, 08.30-18.30 Monday to Friday creates 50 hours of control a week whereas 08.00-20.00 hrs creates 60 hours a week. With widespread Sunday trading, controls can extend up to 84 hours. Staff levels would have to be chosen appropriately.
- **The level of service required:** Parking attendants are enforcers but they can also be a source of help and information, particularly in towns with large numbers of visitors. As a general principle it is better for an attendant to direct a driver to a legal parking place rather than only look for an opportunity to enforce illegal parking acts.
- **The level of contravention:** With low enforcement, compliance will inevitably be poor. In this situation a heavy input of enforcement resources is required before drivers' perceptions of what is acceptable will start to change and non-compliance falls. As non-compliance is driven down by increasing enforcement effort, a point is reached where enforcement costs are high but compliance is good. At this point it is possible to reduce the enforcement level to a point where the minimum amount of enforcement resource is used to maintain good levels of compliance. This can be a dynamic situation and requires constant monitoring and

targeting of resources to avoid moving back to a breakdown of enforcement or where resources are used inefficiently.

- **The impact of contraventions:** More frequent patrols may be needed on routes where the impact of contraventions is greatest, for example where loading is frequently impeded leading to dangerous double parking.

Removal and Clamping

Removal and clamping powers are provided to all authorities that decide to adopt the decriminalised parking powers in RTA 1991 in their PPA/SPA Order. Few authorities, however, undertake removals or clamping.

For an authority wishing to use clamping they must utilise clamps to a design approved by the Home Office. When a vehicle is clamped the vehicle must have a prominently displayed label attached to the windscreen to warn drivers that the vehicle has been clamped and should not be driven. The motorist committing the contravention is required to pay a release fee to recover the vehicle, which should then be released within a reasonable time.

To be effective, clamping needs to be applied in a targeted way. It is self evident that if an illegally parked vehicle is clamped then the time that the vehicle will remain parked is extended since when the driver returns they cannot immediately drive away. Therefore a vehicle that is dangerously or obstructively parked should be removed rather than clamped. Clamping can be an effective deterrent against persistent offenders.

The law prohibits the application of a clamp to a vehicle displaying a disabled users blue badge and most authorities extend a similar courtesy to primary health personnel badge holders. It has been decided as a matter of public policy that diplomats should also be exempted from clamping.

Off-street Parking Regulations

The RTRA provisions for enforcing off-street car park regulations are confusing and difficult to administer. It has resulted in some dubious practices, which have no legal basis. Consequently in 1995 the civil enforcement powers contained in the Road Traffic Act 1991 were extended so that they could be applied in off-street car parks and loading areas regulated by an order (7). The procedures and outcomes are identical to those applied on-street.

Most Councils adopting DPE have their car parks included in the PPA/SPA Order. This is the preferable approach since there will be a consistent and understandable enforcement regime operating throughout the parking area and PAs can be deployed on beats incorporating both on-street and off-street. Where the RTA DPE scheme is not in force, Councils enforce car park regulations by means of excess charge notices.

Unlike signing on the highway, there is no statutory requirement for signing in an off-street car park using approved signs. Common sense dictates, however, that if there are charges and conditions attached to the use of a car park then it is

Clear charges and times.

necessary that the charges and conditions be displayed so that parkers know what to do.

Where a car park is provided and regulated using a traffic order, the Local Authority is precluded by the scope of the Act from using other sanctions. Local Authorities may, however, also operate car parks without an order, normally with access control where the regulation of the car park would depend on a contract between the user and the operator. Car parks controlled by order may also use access control but this is relatively uncommon.

Car parks not subject to a Traffic Order

Municipal car parks may be operated without an order, relying instead on pay-on-foot systems. The user is required then to pay an advertised sum for the parking that they use and failure to do so could, depending on the circumstances, lead either to a civil action to recover a debt, or to a criminal offence. There would normally be no effective enforcement action possible if a driver chose to ignore some other condition associated with the use of the car park, such as parking across two bays.

Private car parks that are operated to provide a service to the public on a commercial basis also rely on a contract between the parker and the operator for payment of a fee. Commercial operators have no explicit powers to "enforce" other than by a civil action after the event. For this reason most publicly available privately operated car parks have attendants to control access.

Enforcement using wheel clamping on private land

There are some private car parks, for example many railway station car parks, that rely on pay and display with a threat of wheel clamping to deter non-payment. The use of wheel clamps in these circumstances is a legal minefield in England and Wales and is illegal in Scotland. Generally, the use of wheel clamps is a very contentious issue, not least because of the quality of people employed by some clamping companies, the circumstances of use and the quite penal sums that have been demanded by some operatives.

In an attempt to deal with some of the worst practices the Government included in the Security Industries Act, 2001(8) powers to enable the companies offering wheel clamping services to be regulated. The Act allows for the publication of a Code of Practice for clamping on private land and, following publication of the necessary regulations, private clampers will have to be registered and comply with a published code of practice.

Some private operators purport to issue a civil penalty. These are wholly without legal basis and are unenforceable in any court proceedings. They are tantamount to extortion.

The complexities of clamping on private land add a further reason for keeping as much public parking as possible within Local Authority control, so that enforcement procedures are subject to democratic accountability.

Private car parks and private land

The final category of car parking where enforcement may be required is a private car park or private land, for example an office car park where the car park is available to users by invitation only. Under these circumstances, anyone who parks without prior permission is potentially trespassing. In reality the powers available to deal with so-called "fly parkers" are very limited since the DVLA are unlikely to release registered keeper details in these circumstances.

How should enforcement be carried out?

On-street

Street parking enforcement requires that enforcement staff patrol the streets where enforcement is required and check the status of vehicles and take enforcement action as appropriate. Normally this would be done by foot patrols and, where there are many vehicles to check, this probably remains the most effective means of enforcement.

Checking the status of a vehicle includes:

- Whether it is parked in a place where parking is allowed;
- Whether it is parked properly within a designated bay; and
- Whether required evidence of correct payment and time is displayed.

The level of enforcement effort required cannot be determined by a rigid formula but must be determined to meet local circumstances and priorities. As a guideline, for an urban area, taking account of the need to check vehicles and issue tickets, an attendant will patrol at an average speed of about 1 mph and so, as a crude estimate, the staff requirement for a given area can be determined from the kerb length to be patrolled and the frequency of visit required.

Table 9.2 offers guidance on the sort of enforcement regime that might be adopted for typical scenarios. It is important to remember that compliance rates will react dynamically to enforcement rates, meaning that whatever level of enforcement is planned, driver behaviour will change. The enforcement regime may then need to be adapted to meet the changed circumstances. The enforcement burden can be reduced in many locations by "designing out" the problem, as discussed in Chapters 6 and 7. It is, therefore, important to ensure that compliance and enforcement data are fed back to the traffic and highway design teams.

It is fundamental to the effectiveness of any enforcement regime that it creates the perception of uncertainty and risk in the mind of the potential offender. There must at any time be an expectation that the offence will be detected and penalised. This is greatly assisted by ensuring that any patrolling is randomised so that it is not possible to plan an illegal parking act around the expectation that once a street has been visited, there is time before the next visit. This can be achieved by dynamically varying how staff patrol their area. For example, an attendant with an area to patrol on average once an hour can patrol the whole

Table 9.2 Typical enforcement scenarios.

Regulation	High Offence Rates	Low Offence Rates
Waiting restriction	Frequent visits, perhaps every hour or less in busy areas such as main bus routes and shopping streets, to keep the kerb clear	Infrequent visits, perhaps daily or less at places where the restriction is to preserve access, eg, in a back street. Any problem is likely to generate calls for enforcement.
Loading ban	Patrol during permitted period to ensure turnover; parking restriction prevails otherwise	
Short Stay Parking	Frequent patrols to ensure turn-over linked to length of stay	Reduce effort if controls are well obeyed
Long-stay parking (eg, residents' permit)	Should not normally require intensive enforcement as residents tend to police and highlight persistent problems	Occasional visits to reinforce and confirm regulations, perhaps once a day
School Entrance	Enforce intensively during hours of operation. Parents the main problem. Short-term transient nature of stopping tends to make ticketing problematical, but offenders can be moved on.	

area once in the first hour, then patrol half the area twice in the second hour, the second half of the area twice in the third hour and return to a full area patrol in the fourth hour. Simple tactics like this prevent opportunist drivers from being able to predict with any certainty when the next attendant will pass and add greatly to the deterrent effect of the patrols.

Besides parking attendants walking the streets, mobile patrols using cycles, mopeds, or cars, can also be effective in some circumstances. In outlying areas, such as a suburban station, where regulations operate part-day to keep streets free of commuter parking, mobile patrols can be very effective in making a quick visit and patrolling the area quickly and more effectively than a foot patrol. Mobile patrols in town and city centres can also be invaluable in supplementing foot patrols by providing completely random additional visits to areas where high levels of enforcement are required. This can mean that a mobile patrol can arrive in a street literally minutes after a foot patrol has left, meaning that people who drive round the block to miss the warden are still vulnerable. Supplementary mobile patrols can also help to provide support and supervision for foot patrol staff.

Finally in areas with extended lengths of “no-parking”, such as an Urban Clearway, a mobile patrol can be an effective means of enforcement since offences are likely to be well spaced out. Offenders also cannot be sure of the proximity of mobile patrols as they could be with a foot patrol.

Where there is a change in regulation or enforcement that could result in drivers being penalised, it is good practice to given an informative warning notice rather than a PCN. Depending on local circumstances this could operate for a fixed period or alternatively drivers can be allowed the benefit of the doubt for their first offence under the new regime. However, a grace period should not be used as a substitute for the provision of good pre-publicity and clear information on the ground about regulations, charges etc.

Off-street car parks

Many municipal and a few privately operated public car parks operate using pay and display machines to collect payment and time the duration of stay. These rely on periodic inspection to check whether the charge has been paid and to penalise non-payment. The number of staff needed depends very much on the configuration of the car park and operational conditions. Checking cars in pay and display car parks can be more time consuming than in a street because many of the cars may be parked “nose in’” meaning that the attendant may have to walk into the bay to check the ticket.

The frequency of inspection again depends upon the type of parking behaviour being observed. For example, at a long-stay car park where most users park all day, a random daily check may be sufficient. In a shoppers’ car park, where users come and go every hour or so, patrols as frequent as once an hour may be necessary for revenue protection and to ensure that the parking is used correctly.

Where parking is free, but time limited, the patrol effort is more onerous because the attendant will have to record the details of every vehicle seen so that they can check the length of stay. Logically one would patrol at the frequency just above the maximum permitted length of stay so that, if a vehicle were seen on successive passes, it would be an offender. The requirement to patrol repeatedly at this frequency, rather than making intermittent passes, would depend upon offending rates. The conclusion from this is that parking which is controlled should also be charged, at the very least to cover the

enforcement costs. Free parking in a controlled area in effect is subsidised by those who park in charged areas and this may be difficult to justify.

Where there is access control and payment is collected at the start or end of the parking act, patrol staff are not required for revenue protection. Operators should still consider whether patrolling is desirable to provide security in the car park, however. If the car park in question has CCTV, good lighting and natural surveillance from passing pedestrians, this will be less necessary than if the car park is remote and unmonitored.

Compliance monitoring

Enforcement of all parking restrictions should be monitored against agreed compliance levels. Compliance monitoring surveys may take a sample of streets, recording the number of illegally parked vehicles. The number and choice of roads surveyed would depend upon the extent of enforcement issues arising.

The following illustration may be helpful. The total parking capacity of the road(s) being surveyed is recorded, together with the number of illegally parked vehicles, ie, the number of spaces occupied by vehicles not displaying a valid permit, voucher or Pay and Display ticket, and by those vehicles exceeding the period for which parking has been paid. For the purpose of a compliance report, unoccupied parking spaces are deemed to be “legally occupied”. The expected compliance level should be stipulated within the compliance contract. There is evidence in schemes, where such an approach is used, that a compliance level of 80% or greater will indicate an adequate level of enforcement. This may not appear to be an overly stringent target but it is sensitive to vehicles setting down or picking up passengers or (where it is not banned) loading, which are subject to exemptions and therefore not parked in contravention of the regulations, as well as drivers returning from ticket machines and other such occurrences, where PCNs should not be issued.

References

(1) The Institution of Highways & Transportation, June 2001, Costs and Benefits of Decriminalised Parking Enforcement.

(2) Local Authorities’ Traffic Orders (Procedures) (England and Wales) Regulations 1996 (SI No. 2489).

(3) Traffic in London – Traffic Management and Parking Guidance (Department of Transport, Local Authority Circulars 5/92, 1/95 and Government Office for London - February 1998).

(4) Traffic Signs Regulations and General Directions 2002 (SI No.3113).

(5) Guidance on Decriminalised Parking Enforcement Outside London (Department of Transport Local Authority Circular 1/95 and Welsh Office Circular 26/95) and Traffic Management and Parking Guidance for London (Government Office for London – February 1998).

(6) Removal and Disposal of Vehicles Regulations 1986 (SI No. 183).

(7) Road Traffic Act 1991, (Amendment of Section 76(3)) Order 1995 SI1995/1437.

(8) Security Industries Act, 2001.

Chapter 10 Funding and the Parking Business Plan

Introduction

Parking in most local authorities involves a large amount of expenditure and income, and is typically one of the most important accounts. It is, therefore, important that parking should be managed not only as a service, but also as a business.

Parking policies and schemes must flow into the business plan rather than being separated from it.

The Parking Business Plan

The core of the business plan will be the parking account that enumerates all income and expenditure, together with any changes to the operation and management of parking that are planned or will have an impact on the financial balance sheet.

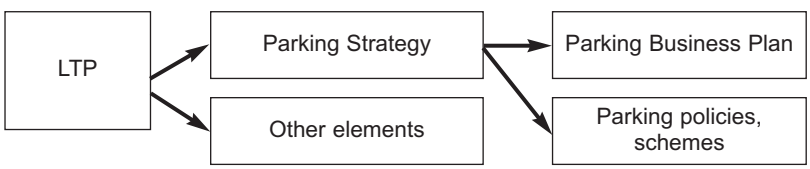
Items that should be included in a typical parking business plan are:

- The parking account (including the previous year and forecasts for the following year(s);
- Policies and planned changes affecting the business, such as a transfer to DPE, or a change in the split between on- and off-street parking;
- Reasoned justification for subsidies to the parking account (such as free parking);
- Investment plans and their estimated costs, such as car park refurbishment;
- Forecast income, taking account of any changes in charges;
- Planned expenditure of any surplus on the parking account;
- Parking supply and demand data, and the results of any review of the business;and
- The impact of resource accounting, particularly the treatment of the asset valuation of car parks.

Income from parking

Local authorities' finance now is more stringently controlled than previously and authorities should, at a minimum, balance

Figure 10.1: The context of a local Business Plan for parking.



their revenue and costs on a year-by-year basis. In addition, revenue should be generated to cover the opportunity costs of the asset value of car parks, buildings and equipment. Local authority auditors are expressing concern where such returns are not being made. For instance a number of authorities who are providing free town centre parking to benefit retailing viability are being criticised for not covering the costs of maintenance, supervision and rates. The auditors generally are not saying that free parking should not be provided, but that such provision must be fully justified by the wider benefits, and that those wider objectives must be specifically stated and understood.

It is possible that some parts of the parking operation will show deficits, such as the provision of free spaces in district shopping centres, or in villages and rural areas. The business plan should clearly identify such issues and indicate where the cross subsidy arises. While policy requirements may override purely financial considerations in constructing the business plan, the reason for such departures from commercial practice should be made explicit and open to public scrutiny.

The business plan should recognise the inter-relationship between charging levels at on- and off-street spaces and the potential transfer between the two. Raising the on-street charges or reducing on-street spaces may increase the usage at off-street car parks. (Whether these are within local authority management control or whether they belong to a private operator may be a consideration.) A well-constructed plan should consider the costs and revenues of both on- and off-street provision as a single service. With two-tier authorities, however, this may be more difficult as the ownership and management of the two types of parking is divided between the two authorities, with the county council controlling the on-street spaces and the district council controlling the off-street spaces.

There may be the opportunity to consider the rating valuations of off-street car parks, particularly for locations that generate low revenues. Some areas have a straight unit business rate irrespective of the financial value of the site. Business rates may be imposed on free car parking facilities since it is argued that it is the local authority's decision not to charge irrespective of the value of the site.

Some Councils view parking as a "cash cow", generating surplus revenues that can be used to support other council services. Some use these revenues solely for the purpose of keeping down the rate of Council Tax. Such practice is particularly questionable (and unlawful in relation to on-street spaces), if the local authority is at the same time seeking financial help from Government to fund its transport schemes. Greater transparency and accountability is achieved, if transport expenditure as far as possible is met from transport related revenue. It is also desirable that people perceive their parking payments as contributing directly to transport improvements.

Setting parking charges

Parking charges, in combination with both the supply and regulation of parking spaces, are potentially powerful tools, and must be determined carefully.

Decisions on charges should be based on reliable estimates of their impacts. Local authorities should retain detailed information on the usage within each different band of car park charge, and use it to monitor year by year the usage changes that occur with changing charge rates. This information will indicate the variations in demand that can be used to predict changes through time.

In practice, although the basic information generally exists, it is not always analysed and

presented alongside the case for altering charges. The setting of charges is often a pragmatic political decision rather than one based on objective analysis of the impacts and effects. Parking professionals within the authority should make it clear to elected members when such decisions undermine or run counter to adopted polices and objectives. There may be ways of avoiding or minimising the risks involved in taking decisions about parking charges that provoke a public outcry, for example by:

- Publishing the charges in a politically "neutral" month (ie, away from elections or Christmas);
- Agreeing charges covering more than one year at a time; and
- Agreeing that charges at cost of living plus, say, a maximum of 5% can be levied without consultation.

The issue of setting charges for residents' parking permits is covered in Chapter 7.

Additional revenue

Car park operators, both private and public, can generate revenue from their car parks additional to that generated by parking charges, for example through:

- Contract parking (generally provided on an annual basis with defined marked out spaces). A variation of this is the provision, generally in City Centres, for evening and weekend special rates for local residents who do not have their own spaces;
- Advertising on reverse of parking tickets (both pay-and-display and barrier systems);
- Internally illuminated advertising, which provides income as well as improved illumination;
- Use of space for Sunday markets or car boot sales (It should be noted that planning permissions are necessary for regular usage);
- Car valeting. This also provides a presence of people that can add to the feeling of security and possibly reduce maintenance and security costs;
- Vending machines; and
- Sponsorship, although this seems to be rarely tried.

Expenditure and Operating Costs

On-street

Revenues should cover the costs involved in setting up, operating and maintaining parking control schemes. Costs should at a minimum include the following:

- Scheme development;
- Consultation;
- Information and marketing;
- Scheme monitoring and review;
- Day-to-day operating costs, including the issue of permits, collection of pay-and-display cash, IT services, "back office" staff, a proportion of senior management costs, contracted traffic wardens or parking attendants; and
- Maintenance and equipment, signs and road markings.

The use of any surplus revenues will need to be carefully considered and justified in the business plan.

Section 55 of the Road Traffic Regulation Act 1984 restricts expenditure of surplus on-street parking income to making good any charges against an authority's general fund, provision and maintenance of off-street parking, highway improvements and public transport schemes. This has been updated by section 95 of the Traffic Management Act 2004 to allow local environmental schemes to be added to the list of permissible uses for parking surpluses. Regulations under this Act will also enable high performing Authorities to have

the freedom to use surpluses for any purpose.

Revenue from fines (under 1984 Act regulations) flow back into the Government Exchequer. However, within a decriminalised parking regime, the charges are not a 'fine' nor are they a 'levy' (as that implies fund raising) but a 'charge'. The revenues from this charge are ring-fenced for parking, transport and environmental improvements. Government circulars make it clear that local authorities should avoid using parking charges as a means of raising additional revenue or as a means of local taxation.

Certain authorities, particularly in central London, generate very large surpluses in their parking account because of the high charges that are necessary both to manage the parking demand and to provide a reasonable level of enforcement. There is no legal problem in this as the high charges, and hence the high surpluses, are justified by traffic and transport objectives rather than pure revenue generation. In many other parts of the United Kingdom, however, the position is closer to 'break even'.

On-street spaces are broadly considered as providing a public service where the primary purpose should not be to make a profit (and to which VAT does not apply) as opposed to off-street spaces where legislation allows a much less constrained approach (and to which VAT does apply). The 1991 legislation does not fundamentally change that distinction.

The absence of a profit motive for on-street parking charges is another important reason for ensuring that all costs associated with the operation are included in the account, including commonly forgotten items such as senior management staff time and the maintenance of signs and markings.

Off-street car parks

Adequate costing should be allowed for maintenance and repairs as well as direct running costs of car parks. It is the lack of an appropriate business plan that has led many authorities to under-resource maintenance and care to the point where car parks are a disgrace and nobody wants to use them.Too often "surpluses" have been declared (which may then be transferred to other council services), when the car parks are not cleaned properly and maintenance is insufficient.

All off-street car parks require funds to operate and maintain them. These costs will include the business rates, lighting and power, cleaning, maintenance and supervision. The costs of supervision and enforcement for pay-on-foot or pay-at-exit will tend to merge, but for pay-and-display additional enforcement costs will be incurred. In most cases these enforcement costs will be met from the excess parking or penalty payments that will be received.

As well as looking after the asset value of the buildings, operators need to consider whether investment, such as improved appearances, new ticketing machines, CCTV and enhanced lighting, could actually pay for themselves by increasing the attractiveness of the facility and therefore its income generation. For private sector operators capital improvements can be justified on simple assessments of rates of return, but for local authorities it is frequently the case that capital funding is not available – irrespective of the merits of the proposed investment. This highlights the potential value of regarding parking as a business within the local authority framework, and the potential value of partnerships with the private sector to increase the capital available for investment.

Capital costs

The capital cost of car parks varies considerably depending upon the type and quality of the provision being made. Table 10.1 sets out examples of typical costs as at 2002. They exclude land values and assume no special ground conditions.

Table 10.1 Typical Car Park Construction Costs.

Type of provision	Specification	Cost per space*
At grade car park	gravel surfaced	£600
At grade car park	tarmac surfacing, marking, lighting, charging equipment	£1,500
2 storey	Simple construction, stairs, lighting and equipment	£4,500
Multi-storey	Standard specification, lifts, lighting and equipment	£4,500
Multi-storey	High specification, lifts, lighting, security etc	£6,000
Underground	Standard specification including ventilation with only a low load bearing surface	£12,000
Underground	High specification – replacement of urban square with high load bearing	£18,000

** Costs reflect 2002-03 prices*

Funding

Off-street car parks

The heyday of local authority car park construction was in the 1960's when construction costs were relatively cheap and forecasts were for large revenue streams that would generate a profit on the development. The provision of car parking by the public sector was seen as the means by which visitors and employees could be attracted into town and city centres. The capital was generally funded through long term borrowing (30 to 50 years). Money did, in fact, flow through the ticket barriers but this was not ring-fenced to a parking account, and certainly not to a transport account. Often the borrowing was treated as part of the council's borrowing requirements and the loan costs were not set off against income. Funds were not set aside for major maintenance or replacement. Frequently the cash flows were used to underwrite other council services and the pressure of demand for these other services gradually drained the money that had been placed in the parking fund to maintain and repair the infrastructure.

The need for increased "capital funding" to cover maintenance and enhancements has led a number of Authorities to either sell off their complete stock of car parks or enter into a partnership with a commercial operator.

More stringent financial management procedures and the introduction of "capping" of Local Government expenditure led to a virtual cessation of new local government funded multi-storey car parks. A simple financial calculation illustrates the reason for this. If a car park structure costs £8,000 per space to construct (excluding land), the debt and repayment charges are likely to be £600 per year, to which need to be added rates, staffing, maintenance, repairs and other costs. The overall costs could easily reach £2,000 per space per year. This would require an income from each space of over £5 each day, a level that is rarely achievable bearing in mind that occupancy levels are mostly well below 100%. In large centres such income may be achievable, but will be counterbalanced by much higher land costs.

Despite the costs involved, there has been new car park construction. The difference from the 1960s is that most new construction is now funded by the commercial sector and designed to complement other activities where car parking

Multi-storey car park – Birmingham.

provision is considered to be an important requirement. Expanded airports, new retail centres, business parks and leisure facilities have been and continue to be designed and located such that car parking is required for their operation. Hence the cost of providing the parking is met by the financial viability of the overall development.

Under current financial rules it is difficult for Local Authorities to fund major car parks through Local Transport Plan or Single Capital Pot resources, or any other conventional source, unless they are able to justify the asset charges that are a requirement of local government funding. There may be exceptions, however. A local authority may be able to raise capital for new car parks through the sale of land or other assets, and certain types of major facility, such as park-and-ride, can be funded through the LTP process.

Local authority provision of off-street at-grade car parks can still be considered viable in a number of circumstances, particularly for the use of vacant land on a temporary basis. Additionally, developing at-grade off-street spaces to support local regeneration initiatives, rural communities or park-and-ride can often be justified by the wider benefits that can be obtained rather than the direct business objectives of a positive balance sheet. Capital costs can be provided through a number of funding streams such as Local Transport Plans or funds for regeneration areas.

Local Transport Plan funding can be used for land purchase and construction costs of park-and-ride sites, and the purchase of equipment related to off-street parking such as variable message signs.

The introduction of 'Prudential borrowing' rules for Local Government does provide the opportunity for Local Authorities to undertake some new investment into car park provision. The rules mean that Local Authorities are now free to borrow for capital investment without having to seek permission from Government, subject to this being prudent and affordable. This opportunity is still in its infancy and, although at the time of writing some Authorities have begun looking at the scope that this might provide, none have so far entered into such an agreement. In effect the policy reintroduces the concept of capital borrowing from banks and financial institutions but, before entering into such an agreement, Authorities should be clear that they can make the repayments from the parking accounts.

On-street

The introduction of on-street controls is likely to incur significant set-up costs and recovery periods may vary widely. However, it is usually a prerequisite of schemes that they be self-financing. There will be a large range of permutations of possible controls, tariffs and charges and funding mechanisms, and each authority must make its own choice. This will require a significant level of financial modelling and forecasting, together with an appraisal of each option under consideration against objectives and financial constraints.

The set-up costs of on-street control schemes, and construction costs of highway works affecting the provision of parking bays, can be funded through Local Transport Plans.

The cost of implementing a controlled parking zone (CPZ) in a small market town will be in the order of £60,000 for lining, signing and pay-and-display machines. A larger town CPZ with 4,500 controlled spaces would be in the order of £500,000+. The cost of a park-and-ride scheme of 500 spaces would be at least £1m, but could be much more than this if access required significant infrastructure provision.

Capital investment for on-street equipment (parking meters, pay-and-display machines etc.) may be considered as revenue expenditure due to the relatively short life of the capital asset, but pressure on revenue budgets may make it more practicable to keep it on the capital side. The source of funding may also be relevant. For example, for schemes funded through developer contributions, it will be easier to negotiate a one-off capital sum than an ongoing revenue sum.

If the capital costs are seen to place an undue burden on council resources, there may be opportunities for Private Finance Initiative or Public Private Partnership deals with private parking operators for them to provide, maintain and operate on-street equipment. Many authorities operate private enforcement contracts but retain the ownership and management of the equipment. The failure of any piece of equipment is, therefore, a risk upon the authority. If the same contractor operated both the equipment and the enforcement, there would be a greater incentive to ensure the prompt repair of equipment as this increases revenue. Such incentives can also be built into enforcement contracts, for example through revenue sharing. These aspects could feature more strongly in the evaluation of best value for on-street operations.

Best Value reviews

The procedures of a Best Value review of parking vary between authorities, but tend to focus on issues that are "internal" to parking, such as:

- Data on the use of parking, including turnover of spaces, daily totals and peaks;
- Staff costs and time involved in parking management, taking into account time spent by staff not employed solely on parking, including senior management time;
- Performance Indicators such as costs and income per parking space;
- Information on PCNs issued, the excess charge recovery rate;
- Levels of maintenance and asset depreciation;
- Problems of operation such as vandalism and car crime; and
- Levels of user satisfaction.

Best Value reviews are conducted to address questions such as:

- Why is the parking service being provided? More specifically, what is the justification for the service being provided by the authority or by private contractors, and are current charges appropriate in relation to costs and potential revenues?
- Are users and service providers satisfied with the operation?
- How does the performance, quality and cost compare with parking operations in other authorities?
- Is the service being provided competitively, and has this been tested?
- What are the strengths and weaknesses of the parking service? and
- What is the potential for improvement, and how could this be realised?

It is important that assessment of the parking service includes consideration of the contribution to wider objectives, such as contribution to sustainability or regeneration objectives, as well as the quality of the parking service itself.

The Policy and Finance Interface

Local Authorities have a prime role in managing traffic congestion, reducing air pollution, maintaining and supporting town and city centres and in encouraging more sustainable means of transport.

Currently the most widely accepted and effective way to influence the demand for car use is through the provision and the price of parking. The policy adopted by most authorities is to try to restrict or discourage long-stay (commuter) parking but to encourage short-stay parking that is perceived to contribute more to the economic well being of retail and other facilities.

In most towns and cities, however, the private non-residential parking element makes up some 50% of the central area parking stock and is, therefore, beyond the direct influence of local authority management. Since local authorities have tended to convert the publicly managed space for short-stay use, the result is that they now have influence over only a small percentage of the car parking stock used for long-stay parking, often less than 15%. In these circumstances trying to influence car commuting by the price mechanism is a forlorn task. It is for this reason that local authorities should seek ways of influencing the supply and use of private parking, as discussed in Chapter 6.

Town centre retailers may consider themselves to be in an unfavourable position compared to out of town retailing locations with free parking. Other than a limited number of locations where a town centre is in direct competition from an out of town retail site, there is no real evidence that reasonable parking charges are a major deterrent to visiting a centre. What is known to be a deterrent is badly laid out car parks that are dirty, smelly and subject to personal security risks. Retailers can generally be persuaded to see the reasonableness of charges, if sufficient resources are being ploughed back into the maintenance and management of the spaces. Users also are generally prepared to pay for a quality service.

Parking charges should relate to accessibility. On-street spaces in the heart of the centre should have very short time limits and be relatively expensive. Shopper parking should be close to the shops but commuter parking can be further away. Parking tariffs can assist in delivering that mix of use. It will be good practice, however, to consider the relative accessibility by car and public transport. Parking charges should be set high enough to encourage the choice of public transport, while car parks and bus stops can be located so that the latter are more convenient for the shops and other attractions.

Private car park operators may charge more for short-term spaces but undercut long-stay charges, which can undermine a policy to reduce car commuter travel.

Private Sector involvement

Local authorities may consider involving the private sector in the management and operation of car parks in their area. Joint ventures or partnerships have been established, for example in Brighton and Hove and Manchester.

There may be a variety of reasons for transferring the provision and management of car parks to the private sector including:

- A lack of ability to raise sufficient capital to maintain the parking stock, or to expand it;
- A lack of revenue to support more staff and associated costs;
- A desire not to operate services directly that would increase local authority staff; and
- Local authorities not being geared towards the operation of a large scale business.

It is important, however, that involvement of the private sector should not be carried out in such

a way that the local authority loses control over charge levels and tariff structures.

Experience has tended to show that parking charges rise faster under private sector control than they would have within local authority control. Many local authorities are fearful of raising car park prices to realistic levels due to the outcry that often occurs. By passing the responsibility to the private sector they no longer get the backlash that can occur. One of the prime objectives of the local authority, however, is to manage traffic levels and to maintain the viability of their town and city centres; both objectives that benefit from retaining control over charge levels and regimes. There may be a middle way, as in Manchester where a board, on which the City Council is represented, sets charges.

On occasions the private sector can release asset values that the council would not, on their own, have been able to realise, often through land deals. Improved management practices and efficiencies of scale can also be beneficial.

The importance of Local Authority control

A number of authorities that sold off their car parks have from time to time regretted that action as they no longer have sufficient influence on charging policy and hence cannot influence either the economic viability of their centres or congestion levels. It is now good practice that local authorities retain control of charge levels and tariff structures, even if management and operation is transferred to the private sector.

There is also an important land use planning reason for keeping car parks within local authority ownership. A private car park is more difficult to remove, should urban design or regeneration plans require it to be removed or replaced. It is noticeable in many cities that otherwise well-designed pedestrian priority areas are compromised by the need to maintain access to car parks constructed before such improvements were conceived.

In deciding whether and in what ways to involve the private

In 1999 Manchester City Council promoted a partnership with private car park companies. However, this proposal was referred to the Monopolies and Mergers Commission due to the perceived lack of competition that would remain in the area. The legal challenge greatly extended the period of contract negotiations, but eventually the partnership went ahead on the basis that Trafford and Salford were immediately adjacent and hence there was not a monopoly of spaces by a single operator.

NCP Manchester Ltd. is a Joint Venture that has provided for £13 million investment in over 40 car parks including:

- Installation of digital CCTV;
- State of the art 24 hour Control Centre;
- Variable message signage on arterial routes and the inner relief route;
- Installation of modern control equipment.

The Joint Venture has a turnover in excess of £16 million providing an integrated parking system within the City Centre Management Plan, Local Transport Plan and Community Safety Plan.

The Joint Venture believes that residents, businesses and visitors have all benefited from the arrangement in a number of ways. To date these include:

- Cost reduction and improved Council net income;
- Upgraded car parks which allow customers to park safely when going about their normal daily business;
- High quality parking provision that enables Manchester to maintain its position as the Regional Centre despite threats from the “out of town” alternative;
- Real-time information on parking options for occasional users of the City Centre;
- A vital role in supporting new commercial development; and
- Support for, and explicit links to, the Local Transport Plan and the Community Safety Plan for the City Centre.

Table 10.2 The do’s and don’ts of private sector involvement in car parks.

✔	✘
• Local authority owned and managed car parks	• Private control of tariff structure
• Private management of car parks under contract to the local authority	• Private control of charges
• Privately owned car parks with local authority control over tariff structure and charges, and regulation of conditions of use and enforcement	• Unregulated private control of conditions of use and enforcement
• Private ownership with management in partnership with the local authority	• Private ownership with unregulated management and operation

Parking sign for private car park – Birmingham.

sector, local authorities should take account of the basic do's and don'ts shown in Table 10.2.

On-street management

Local authorities may also wish to involve the private sector in parking provision and enforcement on-street. Because the outcomes of on-street control schemes may be difficult to predict in advance, the local authority will usually need to be responsible for scheme implementation, but the subsequent maintenance, operation and enforcement functions may be suitable for private sector involvement. Again, the local authority must retain control over charges and tariff structures.

Private sector involvement can introduce new capital but this has to be financed. Depending on the local employment situation, revenue costs may be reduced by lower wage costs. Private sector managers may produce other advantages such as easier recruitment with less bureaucracy, but this should not be achieved at the expense of staff quality and training. Local authority contracts should ensure good standards of service, and will need to allow for the cost of monitoring and enforcing these standards within the parking account.

Private companies now undertake a substantial proportion of on-street enforcement, but they have made less impression on the "back office" systems where local authorities retain more control. While routine office work could be contracted to the private sector, it is generally desirable to retain within the local authority the interface with customers and the handling of complaints and appeals.

If private sector companies are involved in on-street operations, there are also opportunities for them to take over the management of the systems completely including the provision and maintenance of on-street pay-and-display, and cash collection. This may provide a stronger incentive to maintain the equipment, as broken equipment cannot generate an income. The issue of which parts of the parking service can or should be contracted to the private sector, and equally important, which should be retained under local authority control, can be explored through the Best Value review process.

The Parking Account

Within the Business Plan, there will need to be a statement of accounts. This should usually include a statement for the previous financial year, together

Examples of parking account information in south east England

Authority A (A medium size town in south east England)

A total of 3150 spaces were provided, 2500 of which were in multi-storey car parks. The in-house service was run at a net cost in 2000/01 of £83,000, or subsidy per space of £26.

Authority B (A rural district with five small towns)

The council provides 34 car parks across five towns, a total of 2,334 spaces. It does not charge for car parking, though there are time restrictions in some car parks. The estimated cost for 2000/2001 was £283,850, including around £9,400 on enforcement of parking notices and £37,600 on cleaning and maintenance. The cost or subsidy per space was £121.

Authority C (A rural district in south east England)

The council provided 20 car parks (of which 5 are free) with costs of £552,625 for 1999/2000 and income of £668,991. The total number of parking spaces provided is 2,099. The cost of provision per space was £26. The surplus revenue generated per space was £55.

Authority D (A borough council in south east England)

The council's in-house team of 7.8 staff manages 32 town centre car parks with over 2,700 car parking spaces. In 2001/02 the parking service generated a net income of £120,000, or £44 per space.

Authority E (A borough council in south east England)

The council provides 2,700 parking spaces in 43 public off-street car parks free of charge. The cost of the service was £214,260 in 1999/2000 (2.4 per cent of the council's net revenue budget). The Council had a long-term policy of providing free parking and provided sufficient spaces to meet demand. The subsidy per space was £79.

Authority F (District Council in south east England)

The council provided 2828 car parking spaces in one medium size and three small towns. The total expenditure per space in 2001/2002 was £584, while income was £564, producing a revenue loss of £20 per space. However, the account includes two notional items, which if excluded would mean a monetary surplus of £128 per space (see table below).

Authority F Parking Account Summary 2001/2

Expenditure	General management and overhead costs	£685,000
	Asset rental (notional)	£526,000
	Operational expenditure	£443,000
	Total expenditure	**£1,654,000**
Income	Staff permits (notional)	£104,000
	Season tickets	£149,000
	Excess charges	£75,000
	Ticket sales	£1,239,000
	Other	£29,000
	Total income	**£1,596,000**

with a forecast out-turn for the current year and a subsequent period. The assumptions in the forecasts about changes to charges and expenditures will need to be made clear. An overall indication of how the parking account can be structured is shown in Table 10.3.

There is a need to bring all the costs associated with parking within the parking account. In this way any subsidies or cross-subsidies or privileges for certain users are exposed, requiring justification in the business plan. In addition, the costs of parking can be compared with the costs of other transport provision, so that priorities can be decided in the light of true comparative costs.

The parking account should cover the return on capital borrowing or asset values as well as all income and expenditure. Asset values may derive from the opportunity costs of retaining car parking rather than developing a car park site for a more profitable use. Resource accounting may be relevant here.

The largest element of the parking account is likely to be the income generated by parking charges for either or both on-street and off-street spaces. Penalty charges for infringements and overstaying can also be a major element of the overall balance sheet. On the cost side of the equation operational and maintenance costs, including maintenance of the asset value of parking facilities, tend to consume the greater part of the income.

Table 10.3 The Parking Account.

Income	Expenditure
A: Direct costs of operation for each individual car park	
• Parking charge income at off-street car parks	• Supervision costs • Cash collection and handling • Cleaning • Utilities • Consumables
Hence "operating profit" calculated per car park and per space	
B: Costs and revenues from enforcement	
• Parking penalties received	• Enforcement costs
Hence (A +B) "profit" calculated per car park and per space	
C: Other infrastructure costs and revenues	
• Other income streams (advertising, associated services etc)	• Maintenance costs • Business rates
Hence (A+B+C) "profit" calculated as return on current facilities	
D: Infrastructure investment costs	
	• Asset value of investment (calculated as an annual cost) or loan repayment
Hence (A+B+C+D) economic return on off-street parking operation	
E: Direct costs of operation of on-street spaces	
• On-street revenue	• Cash collection and handling • Utilities • Consumables
Hence (E) "operating profit" calculated per space	
F: Costs and revenues from on-street enforcement	
• Parking penalties received	• Cost of enforcement, including "backroom costs". Costs calculated per parking space
Hence (E+F) "profit" calculated per space	
G: Infrastructure investment costs	
	• Review of parking orders • Maintenance of signs and markings • Asset value of investment (calculated as an annual cost) or loan repayment
Hence (E+F+G) economic return on off-street parking operation	
H: Management Costs	
	• Cost of managing the system
Hence (Sum A-H) overall return on parking operation	

Chapter 11
The Role of Marketing and Communications

Introduction

The role of marketing and communications is now of greater significance when parking is used as a means of managing demand, and it is necessary to engage the public to inform them. This needs to cover not only the communication of information about the operation of parking schemes, such as locations, tariffs and charges, but also the principles and purposes behind them. Consequently, effective communication involves winning over “hearts and minds” as well as the provision of information.

Consultation procedures (Chapter 8) form an important part of marketing and communication, but this chapter focuses on the more general and ongoing requirement to communicate with the public. To illustrate the contrasting roles of consultation and communication, the stock of leaflets at a consultation exhibition needs to be replenished for no more than a few days; the stock of leaflets at a tourist office showing parking routes and locations needs to be replenished in perpetuity.

The reasons for Marketing and Communications

There are two principal reasons for communicating parking information to the public:

1. To inform people about any new parking scheme and to involve them as part of the democratic process; and
2. To ensure that drivers know where and when they can park.

In a commercial environment marketing is used to raise awareness of a product and create an appreciation of its desirability. In relation to parking, particularly where there is more than one provider in a town, the objective is similar. Competing suppliers will want to make potential customers aware of what they offer and to differentiate them by branding in order to create brand loyalty and so get more business.

There should be a degree of cooperation, if competition exists, so that town centre visitors are presented with coordinated information. This may happen in something as basic as signing. The purpose of direction signing is to aid drivers; it is not a marketing aid to the municipal car park operator. To be effective in helping drivers to park, any system of signing

should, therefore, include all significant car parks available to the public, not just the municipal ones. This requires all parking operators to work together to provide a single source of parking information. This can then be translated into clear and easy to use information media including signs, maps and Internet pages.

Information on parking must be relevant to the driver on a particular day. Any changes in the location or type of parking must be communicated, including an explanation of the reasons for change.

Car parks have a fixed capacity and once spaces are occupied there are no more until someone leaves. This gives rise to the value of 'real-time' information. In busy towns, good communications can deliver prior information about the status of car parks and can divert and redirect drivers early and so avoid a build up of queues around the busiest car parks. Communication systems can also be used to divert travellers to other facilities such as park-and-ride. Two types of real-time information are widely used: variable-message signs (VMS), and local radio traffic programmes.

Marketing

The main marketing need is to win hearts and minds in relation to the local parking strategy and the various services related to parking that the local authority provides. For example, if high parking charges in the town centre are designed to keep traffic out, and to encourage park-and-ride as an alternative, then it is the positive aspect of a better town centre environment that can be marketed, not the parking charges. Marketing is thus an aspect of and supports the public involvement and consultation processes.

Private car park operators can develop a marketing strategy across different areas. For local authorities, with their administrative area the only base of operation, marketing is often developed with a locally distinctive way. The service may be branded, for example the City of Westminster's "Master Park", but the primary purpose is to promote awareness of the facilities available and to steer users towards the facilities that best meet their needs. In York, which is a major tourist attraction, the city's park-and-ride sites are heavily marketed to visitors even though there are many parking places in the city centre.

Car parking is not an end in itself. People park cars so that they can do other things. The marketing link between parking and other activity can be understated. For example, at edge- and out-of-town retail facilities the availability of uncharged parking is a major factor in their commercial success, but the marketing of this facility is almost subliminal; it is assumed rather than stated that such facilities will have plenty of "free" parking.

Parking can also be used more directly to help promote other activities, for example, a deal between a car park operator and a cinema or theatre whereby the customer can buy an inclusive package deal of tickets and parking. Tour operators use similar offers to promote package holidays, where airport parking is included in the package. Local authorities are usually concerned to maximise the competitiveness of public transport and should, therefore, use their influence to make sure that similar deals are available also for those who choose to travel by bus and rail.

To improve competitiveness, some town centre retailers who feel threatened by edge- or out-of-town shopping offer to refund parking charges to customers. Local authorities may not wish to encourage such offers because it may undermine the effectiveness of the car parking strategy.

Information showing available long-stay parking.

An alternative that provides much clearer benefits, and is already offered by some retailers, is the provision of free or cheap delivery services so that people can use the shop without having to bring their car into the town centre. Such services can be marketed in the store, or more widely in the press, with leaflet drops, and on the Internet. The local authority can also play a role in encouraging such services, for example by requiring their provision (as part of a Travel Plan) in a planning contributions agreement when granting permission for new retail facilities.

Local authorities need to ensure that the parking sections of the council work with the sections dealing with tourism, economic development, town centre management etc. in order to ensure that their towns are marketed in a holistic manner.

Formal communication by Local Authorities

Designing permits for on-street parking

To get a permit the user has to apply to the council and usually provide evidence of their right to secure a permit. This usually involves some sort of form and the council needs to ensure that the design of the form is carefully considered so that its purpose is clear and the requirements to qualify for the permit can be easily understood. In many areas this may mean that the form needs to be made available in a range of languages to reflect the national and ethnic mix of the local community.

The design of the form will need to reflect the amount of information required and the potential for fraudulent applications. Application for a permit in a small market town may be very simple, requiring only simple proof of residence. In the centre of London the value of a permit is very much higher, and, therefore, tempts fraud. For example, an application in the City of Westminster requires an endorsement by an independent referee as well as proof of residence and car ownership. In adjacent Kensington and Chelsea, 8 pages of detailed explanation and assistance accompany the 4-page application form. Many application forms are made available for viewing and downloading from the Internet, and it is, therefore, easy for local authorities to compare examples of current practice when designing their own.

Ticket design

Offenders who receive an excess or penalty charge are required to make a payment to the council. The paper ticket sets out their formal rights and obligations but this may be written in a formal legal way, which may be incomprehensible to some drivers. An alternative is to keep the ticket simple, but to include details of how to obtain the full legal information. A “parking shop” can provide a plain language explanation of why the ticket was issued and what the recipient’s options are.

Parking “shop”

Providing a “parking shop” can enhance access for the public to gain information and advice. To be effective, the opening hours need to be carefully considered, and should include some times when those who work during the week can get access, for example during some evenings or at the weekend. The parking shop can be a source of information and give access to maps, forms and guidance as well as providing a place where those who have received a penalty can pay. Some councils operate a “one-stop-shop” covering a range of council services including parking, and this may be the best option where the operation is too small to justify a stand-alone shop just for parking. Depending on the style of the operation, information may also be

available from the shop via the telephone or on the Internet.

Communication by private companies

Private sector companies do not normally have to deal with the public in the same formal way as a local authority. A private car park operator, however, does have a contractual relationship with its clients and, by means of its published information, does need to make clear what conditions are associated with the use of its facilities. Many people believe, incorrectly, that when they use a car park the operator takes over responsibility for the safe keeping of their car. The Occupiers Liability Acts (1 and 2) place some responsibilities on the operators, but this includes ultimate responsibility for the vehicle only if they have taken possession of it (ie, they have the keys). Otherwise their liability is limited to the actions of their staff and failures of systems and equipment. Thus, if another car reversed into a parked vehicle, the car park operator would not be liable, whereas if the car park attendant dropped a litterbin on the car they would.

Information about the owner's liability is often provided either in very small print on the ticket or by a remote legalistic notice which the driver may not see or, if they do, it is located where it is quite impractical for a driver to stop and read it before entering the car park. Conflict can be avoided by clear simple notices which set out not only the legal limitations on the operator's liabilities but also provide the user with a point of contact where they can get clarification or pursue a claim.

Providing information

Information about parking availability in an area can be made available in a number of ways, some passive, some pro-active, and some interactive. Whichever method is used, local authorities should ensure that the information not only relates to drivers' interests, but also helps people to choose alternative means of travel. In this way information and marketing should support the wider transport objectives of the council. Examples of such multi-modal information and promotion might include:

- Car park information promoting park-and-ride as the preferred option;
- Live radio updates giving the operational status of public transport services as well as roads and parking;
- Leaflets designed as transport leaflets showing bus, cycle and walking routes as well as car parks and main roads; and
- Pre-payment facilities with validity on public transport services as well as for parking.

Maps and Guides

User surveys in West Sussex have revealed that the production of parking information leaflets and publicity is an important aspect of on-going communication. Local people usually know where their town's car parks are. For everyone else a good parking map is essential. The map, if possible, should be a town or city promotion map, on which parking information is shown along with other transport information. Such a promotional map needs to show as a minimum:

- The main town centre attractions;
- The main transport access points, including stations, bus stations and shopmobility points;
- The location of all the publicly available car parks;
- The main routes to the town centre so that drivers can orientate themselves;
- One-way streets and access routes; and
- Tourist information offices, public transport and parking "shops" or other places

where visitors can obtain further information.

To be effective, town centre parking maps need to be distributed as widely as possible outside the town so that a driver can plan where to park before reaching the town. Thus they should be available at service stations and eating places around the town. The map can also be included on the council's web page, which will be of particular value to people who need to pre-plan, such as those requiring a Shopmobility or other special facility.

Maps and other town information should also be made available to people intending to move into an area, for example through estate agents or mailing to people appearing for the first time on the electoral register.

Maps are usually made available in tourist information offices, but this may be of limited value if no short-stay parking in available outside the office. Many towns in Europe have street maps on boards in lay bys on the approaches to the town. These show car park locations, and sometimes information on how to follow specially signed routes linking all the main car parks. A map vending machine at such locations would enable a visitor to choose a target car park before arriving in the town centre.

Traffic Signs

Regardless of how good a map is, drivers need direction signing to help guide them to a car park. Inevitably these signs will be of most value to the complete stranger, but they can also help local people who do not habitually go by car to the town centre, or who have changed their home, work or other location.

It is important to integrate parking signs with other town centre signing, but, where possible, there should be advanced signing to help with early, and hence safe, lane selection. Signing should always

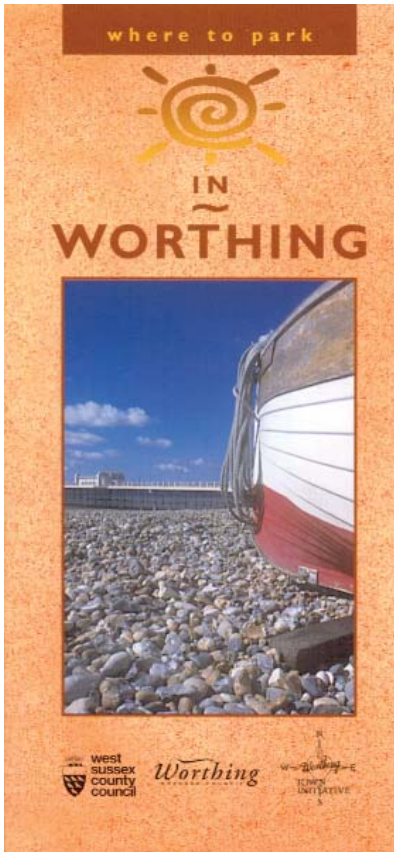
terminate with an arrival sign so that drivers know where to turn into the car park. This will help to avoid the frustration of drivers following signs to a car park in an unfamiliar town only to find that they have driven past the entrance, which was not signed, and have to circuit the town centre again.

Signing can be fixed or variable. Variable signing is useful to show the dynamic changes in parking availability through the day and to show when a given car park is unavailable. There are several types of variable sign in common use:

- Prism signs that can show three messages ie, "spaces", "full" and "closed"; and
- Roller blind signs that can show several messages on a moveable blind.

Dot Matrix signs that can show multiple messages including the number of spaces available in a car park have to be specially authorised.

The information for these signs is usually delivered from the car park management systems via the local Urban Traffic Control (UTC) centre. In a fully integrated system the signals will also adapt so that as car parks fill, the routes to them will be given less green time since traffic flows should drop. The system can also be used to divert parkers away from car parks in busy areas to avoid congestion.



Guide to places in Windsor and Eton and where to park in Worthing.

Providing information in various ways of where to park.

If drivers arrive at their chosen car park to find that the site is either full or closed, they will need directions to alternative facilities. In some towns in Europe there is a signed "parking route" to facilitate this. Drivers are directed round an orbital route, which links the main car parks in the town. Variable signing is then used to divert vehicles off the route to particular car parks or to continue round the route if a car park is full. The primary purpose of the route is to provide an easy-to-navigate route which links the car parking facilities.

Sometimes the routes are designed to include hotels and their private parking facilities.

It is likely that in future information will migrate to in-car navigation systems such that the systems provide the details of car park availability and then direct the drivers to that car park with in-car mapping and navigation systems. Similar systems are beginning to emerge through the use of WAP phone technology or SMS text messaging on ordinary mobile phones. Advances in this field are likely to be driven by advances in route guidance and real time bus information, but parking will be a beneficiary of such technology.

A signing scheme is equally important for pedestrian access routes between town centre destinations and car parks (and other arrival points) that serve them. For further guidance on this issue see the reference to the National Retail Planning Forum (3).

Signing within car parks

Good information signing should be provided within car parks to communicate with the user both as a pedestrian and as a driver. As a driver the user needs clear signs to show where and when to turn, which direction to take and, where traffic flows merge or cross, who has the priority. There are differing approaches to signing in car parks. Some designers wish to introduce an overall theme to a car park and see the internal signing as an integral part of that theme. The disadvantage of this is that the user may not immediately recognise the sign's purpose and this could create a safety risk if drivers fail to cede priority or turn the wrong way. The contrary view is that, as far as possible, internal traffic signing should use the same graphic designs as are used on the highway, based on the argument that drivers are completely familiar with these signs and so are unlikely to misinterpret them.

For pedestrians the first task is to help them orientate themselves in relation to exits and to help them memorise the location of their car for when they return. Depending on size this could mean identifying the floor and even the zone within a floor. This can be done using colours, numbers, symbols or even sounds. Pedestrians also need to be signed via safe routes out of the car park and on to clearly waymarked routes to key destinations.

A car park with good pedestrian signing will be easy to use and so attract visitors. A car park that is user-friendly will be a marketable feature since the experience will reflect the marketing message. Conversely, if a car park is of a poor standard, a visitor may be initially attracted by a good sales pitch but will be discouraged from a

return visit if their initial experience is a bad one. Further, the source of the original information will lose credibility, which can be particularly damaging to future marketing efforts.

The Internet

The Internet offers new facilities and opportunities and can be used:

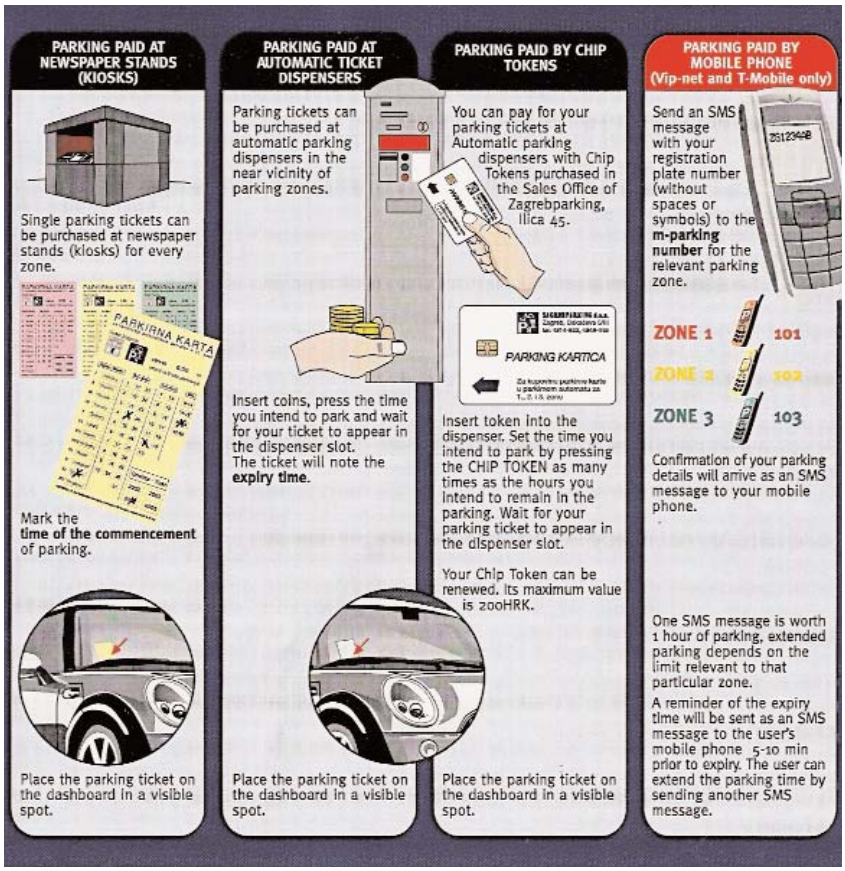
- As a reference source to find car parks at a destination;
- To identify the availability of parking spaces; and
- To book a space in advance.

This can mean that when a user leaves home they already have reserved space available. If the user knows where they are going this reduces search time and uncertainty. The technology is available to link also to an in-car route guidance system. From an operator's viewpoint providing this facility can attract extra business, and monitoring the information collected on-line can help to target offers to maximise use of the facility.

A website can also provide information on the status of car parking so that a parker can know in advance if their preferred car park will be available or unavailable on a given day. Car parking information can also be linked to events so that, for example, a cinemagoer can be linked to information giving the price, location and availability of car parks near the cinema.

Radio

No matter how good fixed signing is, and no matter how up to date websites are,



Information on parking.

circumstances can change. Whilst parkers are en-route to their chosen destination something can happen that will affect their choice of either route or final destination. Most larger towns and cities have at least one local radio station and these can be invaluable in helping to disseminate near real time information on local traffic and parking conditions. Of course the bulletins that they broadcast will only be as good as the information provided, so town centre managers or local parking managers should design facilities to pass data quickly to the media if they want to disseminate information this way.

Mobile Phone Systems

Mobile phones can now be used to contact dedicated numbers to get information on the status and availability of parking in a town and to reserve a place. They can also be used to get traffic updates and routing information, either via voice or text messages. In addition, they can be used as a payment system. If users have subscribed to a service, they can call a dedicated number from which details can be entered via a menu driven set of instructions to pay for their parking. This creates obvious opportunities for downloading additional information to the user and, by analysis of their parking patterns, creates opportunities for tailored promotions.

References

(1) Occupiers Liability Act, 1957.

(2) Occupiers Liability Act, 1984.

(3) National Retail Planning Forum, DTLR, 2002, *Going to Town: Improving Town Centre Access: a companion guide to PPG6*, Llewelyn-Davies, London.

Annexes

Annex A

National Policy Documents

The Integrated Transport White Paper 1998

The White Paper set out five main objectives for transport policy, and parking policies at national, regional and local level are designed to support them. The objectives are:

- To improve safety;
- To promote accessibility;
- To contribute to an efficient economy;
- To promote integration; and
- To protect the environment.

The main references to parking strategies and management are:

- Concern about transport security, of which security in car parks is a key element;
- Local traffic management as an element of Local Transport Plans;
- Powers to charge for road use and workplace parking;
- Enforcement, with bus lanes specifically mentioned; and
- Powers to control wheel clamping on private land.

The White Paper supports explicitly the following aspects of local traffic management as related to parking:

- Control of on-street parking to prevent vehicles obstructing traffic or pedestrians;
- Parking control, on- and off-street, as a component of plans to reduce the amount of travel in and to congested town centres;
- Parking restraint strategies that include packages of measures to improve access to town centres by public transport and deter through traffic. A levy on parking in the workplace can substantially reduce the amount of traffic in central areas;
- New types of equipment for controlling on-street parking: electronic meters, pay and display machines operated by magnetic cards, and voucher systems; and
- Parking enforcement by local authorities, penalties used to fund enforcement, scope for more authorities to take up new powers.

Annex A

Breaking the Logjam

The Government produced a "daughter document" to the 1998 White Paper entitled *Breaking the Logjam* which provided further information on how local authorities could introduce road user charging or workplace parking levies. The purpose of such charges were stated as being to reduce congestion or traffic growth, or to achieve other objectives contained in a Local Transport Plan.

Advice was provided for local authorities bringing forward such schemes:

"The Government will expect a local traffic authority to consider the contribution that new charges might make in delivering the objectives contained in a local transport plan. These plans will enable authorities to take a broader, more strategic view detailing how integrated transport is to be delivered at the local level. New charges may also have a part to play in achieving other objectives, such as air quality objectives established under the National Air Quality Strategy. Authorities will need to be clear about how the introduction of new charges would fit alongside other policies, including planning and land use policies. They will also need to be consistent with local development plans. The new generation of Regional Planning Guidance in England will establish the regional framework within which local development and transport plans will be prepared." (Paragraph 2.9)

The other key aspect of the policy was the hypothecation of revenues from local charging schemes for local transport purposes, for a period of at least 10 years, provided that the scheme is introduced within 10 years of the enabling legislation coming into force. This marked a departure from traditional practice, and enables local authorities to look upon charging schemes as a source of revenue to support a shift of travel demand from car to other modes. This arrangement thus allows sticks and carrots to be used simultaneously, potentially overcoming objections to demand restraint.

Regional Transport Strategies

Local authorities are required to take account of regional guidance on planning and transport matters.

Regional Transport Strategies (RTS) are part of Regional Planning Guidance (RPG). Responsibility for preparing RPG lies with the Regional Planning Body (RPB).

In general RTS in the first round of RPGs did not follow the guidance offered in PPG11, as production was well advanced before its publication. Revisions to RTS were, therefore, required, and the aim was for this to be completed by 2004, before the preparation of the next round of full Local Transport Plans (LTPs). To help in this process 'A Guide to the Preparation of Regional Transport Strategies' was published in 2003.

Strategic park-and-ride facilities

The Government is keen to encourage park-and-ride (P&R) schemes, which are well conceived and well integrated with other measures to reduce the number and length of car journeys and to reduce congestion in urban areas. In some cases, P&R schemes could be of regional or sub-regional significance, and occasionally even of inter-regional importance. This might particularly apply to rail-based parkway schemes targeted at long distance commuters, or schemes involving the motorway network. Where P&R schemes are of such significance, the RTS will need to advise on the regional or sub-regional criteria, which should be taken into account in their planning to ensure the optimum benefit from an integrated planning and transport point of view.

Managing Demand

The RTS should provide guidance on the regional context for demand management measures, which local authorities may include in their Local Transport Plans and development plans. Such measures may include workplace parking levies and road user charging schemes. The guidance should also make clear that restraint measures such as on-street parking control are also matters for RTS.

Many of the Planning Policy Guidance Notes (PPG) that follow are being updated to become Planning Policy Standards (PPS).

PPG 13 Transport

PPG13 is the main policy guidance concerning the role of parking in managing travel demand, since the availability of car parking has a major influence on the choice of means of transport. Its overall objectives are:

- To promote more sustainable transport choices for both people and for moving freight; and
- To promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling.

It sets out a range of policies that broadly state that local authorities should:

- Use parking policies, alongside other planning and transport measures, to promote sustainable transport choices and reduce reliance on the car for work and other journeys.

In particular, it calls on local authorities:

- To reduce the amount of parking in new development, as part of a package of planning and transport measures, to promote sustainable travel choices.

Local authorities should:

- Not require developers to provide more spaces than they themselves wish;
- Encourage the shared use of parking, particularly in town centres and as part of major proposals;
- Take care not to create perverse incentives for development to locate away from town centres;
- Require developers to provide parking spaces for disabled people;
- Introduce on-street parking controls in areas adjacent to major travel generating development to minimise the potential displacement of parking where on-site parking is limited;
- Require convenient safe and secure cycle parking; and
- Consider appropriate provision for motorcycle parking.

Local authorities should also:

- Adopt on-street measures to complement land uses;
- Use car parking charges to encourage the use of alternative modes;
- Set out levels and charges for parking, which do not undermine the vitality of other town centres;
- Refuse permission for car parks that do not accord with PPG13, the development plan or the local transport plan; and
- Encourage the redevelopment or re-use of existing parking.

PPG13 sets out a range of national maximum parking standards for certain types of development, above given thresholds listed in Annex D of PPG13.

Table A.1 National Maximum Parking Standards.

Use	National Maximum Parking Standards 1 space per square metre (m^2) of gross floorspace unless otherwise stated	Threshold above which standard applies (gross floorspace)
Food retail	1 space per 18-20m^2	1,000m^2
Non food retail	1 space per 20-22m^2	1,000m^2
Cinemas & Conference Facilities	1 space per 5 seats	1,000m^2
D2 including Leisure	1 space per 22-25m^2	1,000m^2
B1 including Offices	1 space per 35m^2	2,500m^2
Hospitals	As a general guide 1 space per 4 staff + 1 space per 3 daily visitors	2,500m^2
Higher & Further Education	As a general guide 1 space per 2 staff (parking for students to be provided within this overall figure)	2,500m^2
Stadia	1 space per 15 seats	1,500m^2

Annex A

Regional Planning Bodies and local authorities may adopt more rigorous standards, where appropriate. Maximum parking standards do not apply to small developments.

PPG 2 Green Belts

Annex E to PPG13 amended PPG 2 by adding guidance on Park-and-Ride in the Green Belt. This defines the circumstances in which the location of Park-and-Ride sites in the Green Belt can be acceptable. In particular, it has to be demonstrated that:

- There is no suitable non-Green Belt site;
- The proposal is an integral part of local transport policies; and
- The scheme can be designed that causes minimal prejudice to Green Belt objectives.

PPG 3 Housing

PPG3 makes clear the Government's determination to meet the country's future housing needs in the most sustainable way possible. Priority should be given to re-using previously developed land in urban areas, bringing empty homes back into use and converting existing buildings, in preference to the development of greenfield sites. PPG3 also requires more efficient use of land through higher densities and for high quality design. Local authority requirements for parking, especially off-street parking, are a significant determinant of both the amount of land required for new housing and the quality of design that ensues.

Within this context, PPG3 requires local authorities to anticipate the pattern of parking needs in their area and draw up policies for car parking provision that will deliver the approach set out in PPG3. It advises local authorities that car parking standards that result, on average, in development with more than 1:5 off-street car parking spaces per dwelling are unlikely to reflect the Government's emphasis on securing sustainable residential environments. PPG3 also advises that parking policies should be framed with good design in mind, and recognise that car ownership varies with income, age, household type and the type of housing and its location. They should not be expressed as minimum standards.

PPG 6 Town Centres and Retail Developments

PPG6 emphasised the importance of a coherent town centre parking strategy and secure car parks. In particular it stressed that there was a need for:

- Attractive, convenient, safe parking for shopping and leisure;
- More effective use of town centre car parking;
- Town centre strategies to include traffic management and parking policies;
- Safe, secure parking close to evening leisure uses shared with daytime uses;
- Parking strategy, which should be comprehensive for town centres; and
- Car parks to fit into the townscape;

Local authorities should produce a comprehensive strategy and a set of policies for the provision and management of parking designed to reinforce the attractiveness and competitiveness of the town centre and to support the locational policies in PPG13. In doing so they should consult the business community. Agreement is needed at a strategic level on the parking standards to be adopted over the whole region if possible, but certainly at structure plan level. Local authorities should ensure that parking provision at peripheral developments is not set at high levels, which would have the effect of significantly disadvantaging town centres and should also avoid competition between town centres in terms of parking provision. The standards should differentiate between town centre and out-of-centre locations. New developments should, in line with PPG13, be subject to car parking standards expressed as a maximum provision, including minimum operational requirements. This applies to all non-residential uses, including retailing.

In town centres, the main need is for parking which serves the centre as a whole, rather than dedicated parking for individual developments. The provision of car parks can best be achieved through public-private partnerships, both in the provision and management of car parks. A key role for the local planning authority will be to ensure that land is allocated for this purpose.

Authorities should assess the overall availability of parking in the central area, on- and off-street, public and private, and develop policies covering all types of parking, as well as management and pricing policies for public parking. They should achieve better use of existing parking by adopting policies which give priority to short-term parking for visitors to the town centre, such as shoppers, and discourage long-term parking for commuters. Much of this will need to be achieved through management and pricing policies and conditions or planning agreements, which should be carefully designed to meet local circumstances. Pedestrian access, security, lighting, signing and publicity, management and maintenance should be improved, especially in multi-storey car parks.

PPS 6 Planning for Town Centres

PPS6 emerged in 2005 and brings up to date the guidance in PPG6. It focuses particularly on putting town centres first. Its key objectives are:

- To focus development in town centres in an attempt to promote their vitality and viability;
- To improve consumer choice by providing a wide range of shopping, leisure and local services for the whole community;
- To ensure that developments are accessible through various transport options;
- To encourage greater investment in disadvantaged areas to provide improved services, create more employment and combat social exclusion;
- To promote high quality design and make efficient use of land in town centres to deliver more sustainable developments; and
- To encourage cleaner, safer, greener town centres.

Further guidance on need and impact assessments; sequential testing and dealing with smaller centres are due to be published later.

Local Transport Plans

The Government recognised that the parking proposals in Local Transport Plans could play a key part in delivering transport policy objectives. The Guidance on Full Local Transport Plans (LTPs), issued in March 2000, stated that “local authorities need to establish an integrated strategy on parking, utilising planning policies and transport powers”. In assessing LTPs the guidance (Annex D Table 11) states that the following characteristics would be expected in a good LTP:

- Consistent and coherent strategy which brings together planning standards, charging and on-street controls;
- Clear strategy for effective enforcement;
- Helps to reduce traffic levels in town centres whilst at the same the ensuring enough good quality publicly available parking to support the continuing economic viability of retail and leisure investment in these locations;
- Discourages commuting by car, particularly into congested areas such as town centres through charging policies and active management to favour short term visitor parking;
- Where the overall amount, quality and location of publicly owned car parks are managed to favour short term visitor parking; and
- Does not encourage developers to seek out-of-town locations.

The Government, therefore, expected that the first round of LTPs should show how local authorities would manage demand and seek to reduce car travel demand.

For the second round of LTPs that are due for submission in July 2005 the requirements would appear to be more flexible and less prescriptive. In new guidance issued in 2004 it will no longer be a requirement to produce a Parking Strategy as part of the LTP submission.

Annex B

Annex B

Legislation

Road Traffic Regulation Act 1984

Part IV of the 1984 Act covers parking places and deals with the provision of off-street parking and parking on roads without payment. Section 32 states that for the purpose of relieving or preventing congestion a local authority may:

- Provide off-street parking places; and
- Authorise the use as a parking place of any part of the highway.

Section 35 states that the order must cover:

- The use of the parking places and classes of vehicles that can be parked;
- Conditions on which the parking places can be used;
- Charges to be made for off-street parking places; and
- Provisions for the removal of vehicles left in contravention of the order.

Sections 43 (within London) and 44 (outside London) give powers to local authorities to issue licences for the operation of public off-street parking. These licences must specify:

- The period of the licence;
- The maximum number of parking places; and
- Any conditions set by the local authority such as the scale of charges or minimum charge, proportion of spaces to be available for any particular category of vehicle; and opening and closing times.

Section 45 gives local authorities powers to charge for parking on the highway and section 46 covers the initial charges and excess charges for on-street parking. Section 47 covers offences relating to designated parking places (i.e. spaces or bays that are marked out for the purpose of parking or loading); these are criminalised offences.

The Local Authority Traffic Orders (Procedure) Regulations 1996 (1996 Regulations) provide further details of the order making process and LA Circular 5/96 provides guidance on these regulations.

The Process for making Traffic Regulation Orders (TROs) is set out opposite.

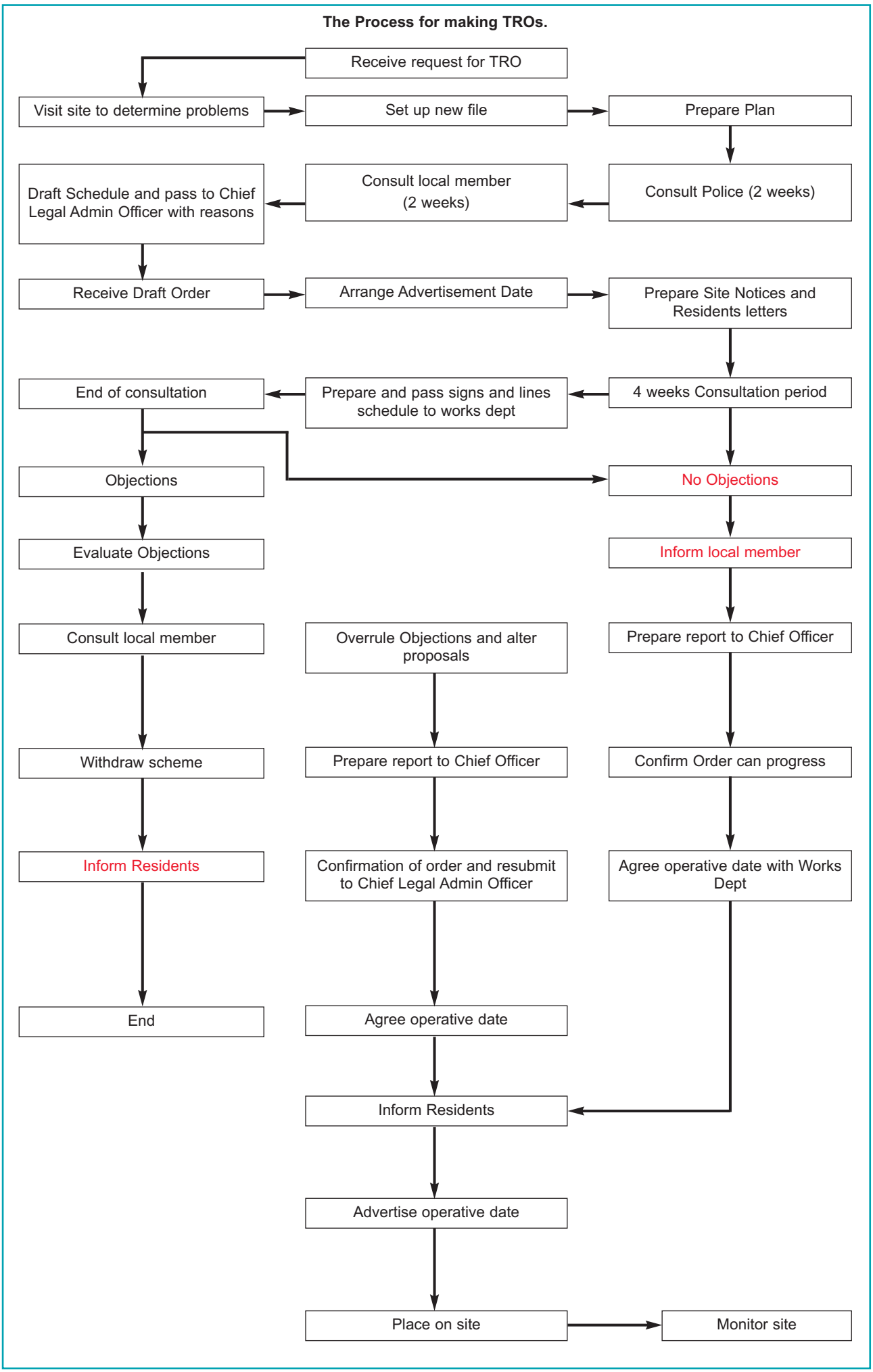
The 1996 Regulations stress the importance of consultation when making a traffic order. Part II of the 1996 Regulations covers the procedure before making an order. This includes consultation, publication of the proposals and the holding of any necessary public inquiry into objections to the order. Part III covers the making of the order and Part IV covers special procedural provisions for certain orders including experimental orders. A significant difference is that consultation requirements are fewer for an experimental scheme and consequently the local authority is not bound to hold a public inquiry if objections are made. Experimental powers should not, however, be used as a cynical means of avoiding thorough local consultation.

It is essential that parking restrictions are up to date and enforcement priorities are identified and co-ordinated between neighbouring authorities. The Best Value environment in local government means that authorities should regularly review their parking restrictions to ensure that they are easily understood, accurate, consistent, and properly signed and marked. This helps to avoid a situation whereby changes occur only incrementally without having a full review of the quality and relevance of the parking operation.

Use of Surplus Funds

The notion of “surplus” means that both income and expenditure (including asset costs) must be known. Section 55 of the 1984 Act (as amended), requires local authorities to keep an account of income and expenditure relating to their on-street parking places, as well as income and expenditure relating to the collection of additional parking charges. Section 55 is modified, in London, by paragraph 5 of Schedule 7 of the 1991 Act and, for authorities outside London, by any decriminalised parking designation order. Section 55(4) identifies the

The Process for making TROs.



Annex B

purposes to which any surplus funds can be put. In London this has been extended by section 282 of the Greater London Authority Act 1999 to cover expenditure that facilitates the implementation of the Mayor's Transport Strategy. These purposes are specifically identified on page 221 of the Mayor's Transport Strategy.

Section 55 has been amended by Section 95 of the Traffic Management Act 2004 to add local environmental schemes to the list of permissible uses of parking surpluses. Regulations under that Act will also enable high performing Authorities the freedom to use parking surpluses for any purpose (see also the comments set out under the Traffic Management Act 2004).

The use of revenue from off-street car parks is not constrained in the way that on-street revenues are, and local authorities can, and often do, use it to help keep down the local council tax. Such practice does tend to work against the more holistic approach to parking now required of urban policy makers. Although not specifically required by law, a good practice parking strategy will include the management of the on- and off- street parking accounts as a single entity, within the wider framework of transport and planning policy. This is also pertinent to DPE finances where increased off-street revenues result from the more effective enforcement of on-street controls, perhaps sufficient to achieve a break-even point.

Road Traffic Act 1991

Decriminalisation of Parking Offences

The 1991 Road Traffic Act enabled local authorities to take responsibility for enforcing non-endorsable parking offences. Parking offences are decriminalised, and the penalties are civil debts paid to the council. The council therefore gets income from penalties to help fund the cost of enforcement. The Act required all London authorities to take up the powers by 1st July 1994. Authorities outside London can apply to the Secretary of State for powers to decriminalise parking in all or part of their area. Initially the take-up was slow, with only five authorities having decriminalised by the end of 1997, and none of the major cities. However, by 2002 most of the major towns and cities had decriminalised or were actively planning to do so.

Government has encouraged decriminalisation and issued guidance.

The Road Traffic Act 1991 sets out the approach to decriminalised parking in London (Sections 63 to 77), together with a power (Section 43) to extend these provisions outside London. The Act also allows (Section 63) for the Secretary of State to issue parking guidance covering:

- parking charges;
- penalty charges;
- charges for the removal, storage and disposal of vehicles; and
- charges for the release of vehicles from immobilisation (wheel clamps).

Guidance on Decriminalised Parking Enforcement (DPE) for London was provided in *Traffic Management and Parking Guidance for London*, published by the DETR in 1998. This states that London local authorities should assess parking provision and develop a Parking Strategy, which includes a statement of parking and enforcement priorities and quantifiable standards of performance. Responsibility for guidance has now passed to the Mayor of London, through the London Transport Strategy. Even so, the 1998 document contains much useful information and greater detail than the London Transport Strategy, and will continue to be useful for authorities both inside and outside London.

For authorities outside London adopting DPE, guidance is provided in Local Authority Circular 1/95 *Guidance on Decriminalised Parking Enforcement Outside London* (Welsh Office Circular 26/95), with amendments on charge levels being given in subsequent circulars.

In that Circular objectives for local parking controls were stated. They include:

- Ensuring effective on-street enforcement to minimise the impact of car parking on other road users;
- Improving co-ordination between authorities;
- Introducing, strengthening or extending controlled parking zones in areas of parking congestion;

- Ensuring that parking space is effectively managed by time and price, to meet traffic and transport objectives;
- Providing for the needs of people with a disability;
- Providing convenient coach parking and pick-up points at entertainment and other visitor locations;
- Reviewing the cost of public parking so that it restrains non-essential journeys by car and reduces the overall demand for parking;
- Allocating parking space for specific users according to explicit priorities and criteria;
- Adequately signing parking and loading controls, while seeking to minimise sign clutter; and
- Developing a comprehensive approach to the management of on-street and off-street parking.

The decriminalised parking regime introduced by the 1991 Act created the role of parking adjudicators, who must be qualified solicitors, to resolve disputes between local authorities and motorists. In London, section 73 of the 1991 Act requires the establishment of a joint committee to appoint these parking adjudicators. Outside London the Act gives powers, set out in Schedule 3, for the Secretary of State to designate special parking areas where decriminalised parking will occur. The National Parking Adjudication Service, established for England and Wales, is an independent tribunal where impartial lawyers consider appeals by motorists issued with Penalty Charge Notices.

The system of decriminalised parking brings greater responsibility for parking to local authorities who can now not only set parking policy but also ensure its adequate enforcement, leading to a much stronger commitment and level of enforcement than in the past.

The Traffic Management Act 2004

The Act is set out in seven parts with different parts of the Act coming into force at different times. Implementation is allied mostly to the publication of statutory guidance. Sections of particular relevance are noted below.

Part 2 relates to the new statutory network management duty placed upon local traffic authorities, which aims to secure and facilitate 'the expeditious movement of traffic'; the appointment of a traffic manager and his powers; joint arrangements exercised by more than one authority; and the special arrangements that apply in London.

Part 6 consolidates existing legislation for civil enforcement (sometimes referred to as decriminalised enforcement) and extends the number of offences that can be enforced in this way. Section 75 is of particular interest to those Local Authorities, which have not yet taken on board civil enforcement of parking offences in that it gives the Government the power to direct any such Authority to apply to acquire these powers. There are also provisions setting out how a civil enforcement regime should be administered with powers given to the Lord Chancellor to make regulations about the notification of penalty charges e.g. by fixing notices and on immobilisation devices. Sections 84-86 relates to the additional contraventions that apply to designated special enforcement areas. In these areas there can be prohibitions on 'double parking' and parking at dropped footways. Other Sections are framed so that they refer either particularly to London or elsewhere.

Part 7 includes amendments to the rules in the Road Traffic Regulation Act 1984 concerning how surplus income from parking management can be spent. It may now be spent on: public transport; road improvements; environmental improvements (as specified in Section 95); and in special cases where an Authority is given permission.

Workplace Parking Levies and Road User Charges

The Workplace Parking Levies (WPL) legislation applies to parking spaces used by employees and business visitors to places that are primarily workplaces. It also applies to students at places of education. It does not apply to visitors to retail or leisure premises.

Section 296 of the 1999 Act gives powers to Transport for London or any London Borough to establish a workplace parking levy scheme in Greater London. Schedule 24 of the 1999 Act sets out the detailed requirements of such a scheme. A workplace parking levy scheme requires an order to be made so

Annex B

that the local authority can charge the occupier of premises within a designated area for the use of workplace parking spaces. Any such scheme must be in conformity with the Mayor's Transport Strategy. An authority can make a scheme individually or jointly with another authority.

In the 2000 Act, WPL provisions are set out as a licensing system: the local authority becomes the licensing authority, which adopts a licensing scheme, and identifies licensed premises, where a licence is issued to the occupier.

A licensing scheme must:

- Designate the area covered by the licensing scheme;
- State the days on which, and hours during which, a license is required;
- Specify the charges payable on licenses (expressed as a specific sum of money for each licensed unit); and
- State whether or not the licensing scheme is to remain in force indefinitely and, if is not to remain in force indefinitely, the period for which it is to remain in force.

The contents of an individual licence made under a workplace parking licence scheme must:

- State the name of the person to whom it is granted;
- Identify the premises to which it relates;
- Specify the maximum number of motor vehicles (not counting exempt vehicles) which may be parked at those premises at any one time; and
- State the amount of the charge paid on the licence and set out the calculation of that amount.

The licensing authority must keep an account of the income and expenditure on the scheme and as part of the WPL scheme order set out how they intend to re-invest the net proceeds into local transport improvements.

The provisions for outside London are contained in sections 178 to 190 of the Transport Act, 2000. These cover a similar process to that in London.

Index

Index

PPGs are gradually being updated and renamed Planning Policy Statements (PPS)

Index