HIGHWAYS IN NEW DEVELOPMENTS – RESIDENTIAL PARKING PROVISION POLICY

INTRODUCTION

This document sets out the parking space standards for new residential areas. It is part of a suite of documents called ‘Highways in New Developments’ for use by people involved in developments requiring the provision or alteration of roads. It is aimed at developers, promoters, consultants, architects, highway engineers, planning officers, the public and any other interested parties.

Throughout the guide some illustrations are used to help explain some of the important design principles but should not be interpreted literally.

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HIGHWAYS IN NEW DEVELOPMENTS –

RESIDENTIAL PARKING PROVISION POLICY

1. HOW TO USE THIS DOCUMENT

1.1. The document is set out to follow the process in which parking spaces are calculated and provided for during the design period when the layout of the development is evolving.

1.2. The background and the basis in terms of research and evidence base are explained first.

1.3. The parking provision in terms of number of spaces is set out together with the variances for different parts of the county. An example calculation is provided.

1.4. The sizes and location of parking spaces are covered including how parking for the mobility impaired is catered for. The concept of clearly differentiating between allocated and unallocated spaces is set out within the total number of parking spaces to be provided within the development.

1.5. Finally some advice is offered on other methods that should be employed to generally try to optimise the space used in new developments to accommodate the car.

2. BACKGROUND

2.1. The amount, type and location of car parking in any development can have a major influence on how well the development works for residents and other users of the highway. It can also be a major influence on the visual appearance of the development. Where and how the car parking is located is as important as the amount of parking. Very careful consideration needs to be given to car parking in the design process and the following paragraphs outline some of the considerations that should be taken into account. In preparing this guide the following documents have been referred to: ‘Manual for Streets’ (MfS) published in 2007 by the Department of Transport Communities and Government; Manual for Streets 2’ published in 2010 by the Chartered Institution of Highways and Transportation, “Car Parking What Works Where” (English Partnerships) published in March 2006 and ‘Urban Design Compendium’ published in August 2000 by the English Partnerships.

2.2. As a principle, car parking should be provided for both residents and visitors at an adequate level, located conveniently for intended users, visually unobtrusive, and overlooked to minimise the risk of car-related crime.

2.3. It is acknowledged there may be a practical distinction between large residential developments and small infill developments where perhaps the site is more restricted. The Local Planning Authority and the Highway Authority will take a pragmatic approach in these circumstances but the onus is on the developer to provide evidence if a departure from the standard is sought. The new guidelines emphasise the advantages of unallocated parking spaces as they are more efficient in terms of land use than allocated spaces and generally some should be provided in new developments particularly those involving flats. However, it is recognised that security

is important and generally owners wish to have their car as close as possible to the front door of their home or overlooked from a window.

2.4. The current parking standards for the County Council were approved by committee in 2001 and published in the Residential Road Design Guide in 2003. The parking standards of the district planning authorities followed those of the County Council. The standards were maximum standards in line with maximum standards recommended for non-residential land uses in Planning Policy Guidance 13 (PPG13). It is now generally accepted that constraining parking provision at the journey destination, particularly in town centres (commercial, retail, employment) does limit private vehicle trips, but it is not necessarily the case at the journey origin (residential properties). Residents will own cars and if necessary park them on streets where there are no parking controls. In doing so it often causes conflict and access problems. In recent years there has been a growing feeling that there is insufficient parking provided in new residential developments. Furthermore, there are emerging national statistics which indicate that car ownership is growing higher than predicted even though there is a trend of vehicle-kilometres travelled being lower than predicted.

3. RESEARCH

3.1. The county and district councils in Oxfordshire jointly commissioned consultants to look at the car ownership in new developments. The starting point for the research into the car ownership levels was 2001 census data to establish how car ownership varied across the County depending on location, dwelling type, dwelling size and tenure. This was followed by a questionnaire survey of 23 recent (post 2000) developments and then later by a more comprehensive questionnaire survey. The car ownership data was extrapolated to 2026 using Tempro growth factors. This led to a matrix approach to parking provision which is used in this guide. This follows a similar methodology used in national guidance published by the Department of Communities and Local Government in May 2007 as “Residential Parking Research.”

3.2. The research identified the additional car parking which would be required if a development had a set number of allocated spaces per household. This recognises the fact that if for example each property is allocated two spaces there will be some households with three cars or more and others with one or no car. The parking provision may meet the total demand but those households with three and more cars cannot use the spare available spaces in households with one or no cars. This leads to the view that some unallocated car parking provision which could also be used by visitors. This is desirable and it also tends to reduce the total number of spaces.

3.3. The guidance has been created from the research carried out for the county and district authorities and is the basis for designing the parking provision. The research carried out identified that dwelling size and tenure were the most significant factor in car ownership. The councils require the design of private, shared ownership and rented dwellings to be to the same standard with no identifiable distinction between

the different tenures. Therefore the parking provision in this guideline treats all housing tenures as the same. This has the added advantage that should tenures change in time there are unlikely to be any parking difficulties.

3.4. The research undertaken for the parking study was very detailed and looked at various locations within the county and different dwelling types. However the amount of data on flats was limited and therefore not as reliable as for houses. Therefore the guidance formulated from the research is to be used for both houses and flats.

3.5. The research indicates that there was a slightly lower car ownership for the major urban areas of Cherwell shown below (and for outer Oxford). This lower car ownership probably is related to the better public transport and accessibility to local facilities. However this was not reflected in other urban areas within the county.

3.6. When parking is provided in individual allocated spaces (ie under specific private control) the usage and occupancy is restricted. When parking is unallocated the flexibility of occupation rises. Hence the total number of spaces used for the same number of dwellings is reduced.

3.7. However it has to be acknowledged that an optimum level of parking has to be achieved without encouraging the ownership of more cars than necessary but also to create a controlled environment in which to store them near to residential units.

3.8. Furthermore, there are emerging national statistics which indicate that car ownership is growing higher than predicted levels even though there is a trend of vehicle-kilometres travelled being lower than predicted.

3.9. The minimum size of an individual parking space has been increased from previous standard to 5.0m by 2.5m. This reflects the increasing number of larger vehicles.

4. ALLOCATED AND UNALLOCATED SPACES

4.1. Parking spaces can only be allocated to specific residents where the parking area is not on the public highway. This can be within the curtilage of a single house, a private area within a parking court conveyed specifically to a flat or house, or a group of spaces owned by a third party where the spaces are leased to individuals.

4.2. Unallocated spaces can be provided off-street in parking courts. However this is not recommended as they are not controlled or maintained effectively. The exception is where they are under the control of a third party such as a management company.

4.3. Parking on the public highway cannot be allocated to specific properties or residents, and are the only car parking spaces that will be maintained by the Highway Authority.

4.4. Parking spaces on a private road cannot be allocated to specific residents and the Highway Authority will ensure that suitable control and maintenance of the road is provided for.

4.5. On-street parking (whether adopted or private) can be controlled by traffic regulation orders to restrict vehicle type and or length of time of use although this is not a preferred solution on new estates. If the surrounding area suffers parking problems then other means of controlling parking should be considered. The actual design of the road and housing layout can be used to provide an effective self controlling arrangement to reduce the need for traffic regulation orders.

5. PARKING PROVISION

5.1. The objective of the current guidelines is to provide a simple method of determining the parking provision required. The tables in Appendices A, B and C are to be used for all locations in Oxfordshire. The most significant change in the new requirements relates to the provision of unallocated spaces and no further provision for visitor parking is required.

6. PARKING PROVISION CALCULATION

6.1. The appendices below documents the information needed to calculate the parking provision for all new developments.

City of Oxford

6.2. Refer to Appendix A for parking standards for the City of Oxford.

Cherwell Major Urban Areas

6.3. Refer to Appendix B for parking standards for the major urban areas in the Cherwell District Council area.

Rest of Oxfordshire

6.4. Refer to Appendix C for parking standards for all areas in Oxfordshire (other than the City of Oxford and Cherwell major Urban Areas.

General Guidance

6.5. Some deviation from the parking standards may be allowed for small-scale developments involving domestic extensions, subdivision of a dwelling house into self-contained flats, and infill development where no new access road is created. Discussion with the planning authority should take place at an early stage to establish if a variation will be permitted.

6.6. Parking for visitors and operational needs are included in the figures.

When calculating the numbers of spaces, especially where the dwelling numbers are low, the decimal remainder will be rounded down for up to and including 0.50 and rounded up otherwise.

Calculation Example

6.7. Refer to Appendix D to see an example of calculating the parking requirement (and allocation choices) of a development proposal.

7. PARKING SPACE DIMENSIONS

7.1 The following tables show the minimum space sizes acceptable:

Perpendicular: eg.on driveways and parking courts	Length (m)	Width (m)
Space for mobility impaired	5.5	2.9+1.0
Standard space (unobstructed)	5.0	2.5
Standard space (obstructed on one side)	5.0	2.7
Standard space (obstructed on both sides, includes car ports and undercrofts))	5.0	2.9
Inside garage	6.0	3.0

Parallel: eg. adjacent to streets and driveways	Length (m)	Width (m)
Space for mobility impaired	6.5	2.9+1.0
Standard space	6.0	2.5

Echelon parking	Permitted overhang (m)	Length (m)	Width (m)
60°	0.1	5.6	As above
45°	0.2	5.3	As above
30°	0.1	4.7	As above

8. PARKING FOR THE MOBILITY IMPAIRED (BLUE BADGE HOLDERS)

8.1. Consideration must be given in the design to the provision and location of spaces for drivers with impaired mobility. Generally the spaces should be within the curtilage of the property and have level access to the main pedestrian access.

8.2. Where developers are proposing to build flats with unallocated parking (off street) and the level of mobility impaired residents is unknown then 5% of spaces should be designed and allocated for their use. They should be located near to the main pedestrian access to the building and have level access.

8.3. The bay should be marked with a British Standard Disabled Symbol to conform to BS 8300:2009. Further guidance can be obtained from Department for Transport (DfT) Traffic Advisory leaflet 05/05

8.4. Buildings specifically for the elderly or mobility impaired should comply with the relevant higher specific requirements and standards (as shown in the parking space dimension tables above).

9. PARKING SPACE LAYOUTS

9.1. A vehicle/pedestrian sight splay of 2m x 2m will normally be required where the parking space abuts the back of footway or highway boundary.

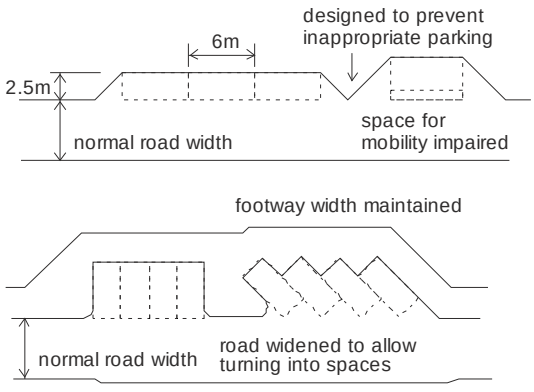
9.2. Parking bays which are side by side allow car doors to be opened partly into the adjacent bay. Where parking spaces are adjacent to structures adequate room for pedestrian movement should be provided on one or both sides accordingly.

9.3. Tandem (in line) parking should generally be avoided as it tends to encourage parking on street and the use of one vacated space for purposes other than parking or left as unused space. However tandem parking on plot may be appropriate.

9.4. Where parking is to be provided on street, parking bays adjacent to the running lane may be appropriate in certain cases but it should be broken up in maximum groups of about 4 spaces. This not only limits the visual impact but allows kerb build outs to be provided for pedestrians to cross the street with minimum sight line obstruction.

9.5. Where lay-by parking is provided on street it should be constructed to carriageway standards. The parking bay should be differentiated from the carriageway preferably by change of surface colour.

9.6. An indication of how parking spaces relate to the street are shown in the following figures:



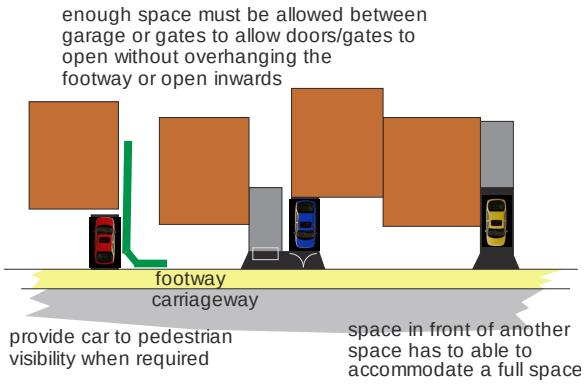
9.7. Problems have occurred in relatively new developments, particularly where carriageway widths have been reduced, due to parking outside designated spaces restricting service vehicle access. The road width and location of parking, both on and off street, is a critical factor in avoiding irresponsible parking. It is a delicate balance to achieve and designers should show how the design reduces the risk of

irresponsible parking and how if it occurs the passage of service vehicles is unhindered.

9.8. Always sufficient space must be allowed to achieve a safe and appropriate approach for vehicles into a car parking space. An average vehicle needs a width of 6.0m to swing into a parking space and 7.3m is needed to get into a garage and hence should be provided for.

9.9. From experience of recent new developments in the county it is apparent that where garages or gates into parking areas are constructed less than 5.0m from back of the highway, residents and visitors tend to park with part of the vehicle obstructing the footway. To avoid this, the set back from the footway should be either 0.5m to allow for 'up and over' garage doors (0m if roller shutter or similar) or greater than 5.5m to allow for car parking in front of the garage or gates.

9.10. Set out below are examples of off street parking layout in relation to the footway. This arrangement will be required especially where the footway and carriageway is to be adopted by the Highway Authority.



9.11. Variation to the above may be acceptable in certain circumstances but the onus is on the developer to provide supporting evidence.

10. GARAGES

10.1. Most family cars are about 2.0m wide and a minimum clearance of at least 0.5m each side is required to open car doors on both the driver and passenger side. An average car length is about 4.5m.

10.2. Research has indicated that about 50% of garages in Oxfordshire are not used for parking of vehicles but are used for storage or other purposes. This may be due to garage sizes being too small to accommodate most family cars and for storage of bicycles and other domestic goods. To allow for some storage and or cycle parking capability the garage size should reflect this (see section 7: Parking Space Dimensions). Garages below these dimensions will not be counted as a parking space.

10.3. Where a garage is counted as a parking space it will be normal practice to place a planning condition to ensure its continued use for that purpose.

10.4. The garage doors must not open onto or over the adopted highway area, and vehicle/pedestrian sight splays apply as for the parking spaces.

10.5. Garage courts require a minimum of 7.3m between garage fronts. Adequate drainage must be provided for the paving in front of the garages.

10.6. The minimum entrance widths and headroom to garage courts are the same as for parking courts.

11. CAR PORTS AND UNDERCROFT PARKING

11.1. Car ports and undercroft parking areas are less likely to be used for purposes other than parking a vehicle. Car ports 5.0m long by 3.0m wide and greater will count as a parking space.

12. PARKING COURTS

12.1. Rear parking courts can reduce the visual intrusion of cars. But there are disadvantages including inefficient use of land, reduced garden sizes and loss of security and privacy to the rear of the home (ref. “Car parking What Works Where”, English Partnerships). It states “The recent fashion for placing parking spaces behind buildings has led to many schemes around the country being blighted by cars parked to the front of the house where there is no space designed to accommodate them.” Careful consideration therefore needs to be given to the location and design of parking courts to minimise any adverse impact. A balance needs to be struck between on street and on plot parking.

12.2. Parking courts work best when they:

- Have no more than about 10 spaces
- Have single point of access to the highway
- Are overlooked by living rooms or kitchens
- Have adequate lighting
- Have boundary treatments to allow overlooking and avoid blank walls
- Have direct access to dwellings
- Are high quality in design terms - materials, planting etc
- Are located in accessible areas
- Have sense of place
- Feel secure to users.

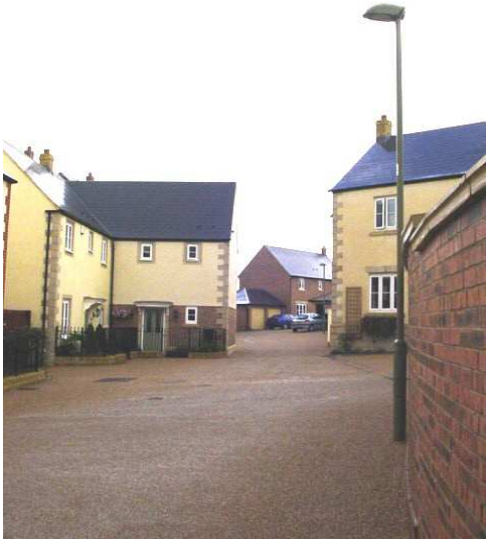
This is a good example of good design in terms of being overlooked from living space but the nearby space could be wider.

12.3. The entrance to parking courts should generally be a minimum width of 3.0m for up to 9 parking spaces and 4.1m wide for 10 or more spaces. Where the entrance to a parking area is built over the headroom should be a minimum of 2.5m. (Separate building regulations may apply where fire tender or emergency access is specifically required.)

12.4. Courtyards which are located at the centre of a street block, with two or more access points, have properties with views or facing on to the courtyard and which allow pedestrian movement through them, can offer an alternative to rear parking courts. 'Better Places to Live' points out they work best where

- They are not car parks but places which have parking in them
- They are overlooked by adjacent houses
- They are suitable for up to about 10 car parking spaces.

12.5. Whilst courtyards with properties facing onto them can be a satisfactory arrangement, concerns about security may preclude the arrangement in some circumstances.



Poor designation of spaces can lead to indiscriminate parking which can reduce capacity for parking

12.6. Parking squares in the appropriate setting can also be used as an alternative form of providing parking provision. Designs using 'Homezone' principles provide the opportunity to integrate parking within the street. However, shared surfaces need careful consideration to ensure parking does not occur outside designated parking areas thereby causing road safety problems and impairing the overall amenity of the development.

12.7. Designers should be aware that on street parking may cause problems for vehicles manoeuvring on the street particularly where the carriageway width has been reduced as part of the overall design. The effect and implications of on street parking must be considered in the layout design.

13. MINIMISING PARKING ON THE FOOTWAY

13.1. The risk of residents or visitors parking on footways or other paved areas should be minimised in the design.

13.2. The importance of adequate set backs for garages and gates to parking areas is outlined in the preceding paragraphs

13.3. Wide areas of footway or open space may also be attractive for casual parking. Bollards, planters or other street furniture can be used to indicate where people should park but a compromise needs to be reached to avoid street clutter.

How did they get in? (designs have to eliminate poor parking habits)

14. REDUCED CAR PARKING STANDARDS

14.1. The provision of car clubs within new developments can be part of an overall package of measures to reduce car ownership. A variation in parking standards may be appropriate where car clubs are introduced and secured for the long term.

14.2. When areas within residential development are being considered as ‘car free’ or where reductions in car parking provision beyond levels required in this policy then the implications and remedies must be addressed in the Transport Assessment and Travel Plans which accompany the planning application. Care must be taken to ensure that cars are not parked on surrounding roads causing problems to existing residents or for highway safety.

A. APPENDIX A – Parking Standards for City of Oxford

A.1. Oxford city is different to the rest of the county, including its suburban areas. In urban parts of the city that have good accessibility by non-car modes, it is reasonable to design for car ownership levels that are below theoretical demand levels.

A.2. Car parking standards for Oxford are currently set out in the saved policies of the Oxford Local Plan 2001-2016, with further detail contained in a Supplementary Planning Document "Parking Standards, Transport Assessments and Travel Plans" (February 2007). This forms part of the current evolving Local Development Framework. Policies relating to parking will be reviewed in the emerging Sites and Policies Development Plan Document.

A.3. In Oxford there is a range of housing types and densities, differing degrees of access to local facilities and public transport. Car ownership is typically lower in the city centre than the outer areas. It is recognised that many parts of Oxford provide opportunity for lower parking provision than the maximum standard.

A.4. Appendix B summarises the car parking policy for Oxford and also provides the research findings for outer Oxford, reflecting forecast residential parking demand, inclusive of shared off-plot provision. This forms the context in which the parking provision outside the Transport Central Area will be considered by the County Council as Highway Authority.

A.5. These should be treated as maxima, reflecting good overall accessibility by non-car modes, and the need to use land efficiently. Also, shared off-plot parking, combined with on-plot parking where appropriate, will be encouraged.

Parking Provision in New Larger Developments – Outside the Transport Central Area

A.6. The amount of parking that would be required to meet forecast demand in new larger developments is shown in Table A1. These will be treated as maximum standard provision. Provision below the maximum standard will generally be appropriate in locations with good accessibility.

Table A1- Car parking provision in new developments in the City of Oxford				
Rooms	Bedrooms	number of unallocated spaces	number of additional unallocated spaces when one allocated space per dwelling is provided	number of additional unallocated spaces when two allocated space per dwelling is provided
1-3	1	1.0*	0.4	Not permitted
4-5	2	1.5	0.7	0.3
6-7	3	1.8	0.9	0.4
8+	4+	2.1	1.2	0.5

A.7. In new small scale development outside the Transport Central Area and in the tighter built up areas where densities are high and traditionally no on plot parking is provided then proposals may not need to provide on plot parking. In other cases the above table will form the basis of the assessment.

A.8. Where local circumstances allow, a substantial element of shared off-plot parking will be preferred over provision of 2 or more spaces per unit.

Parking Provision within the Transport Central Area

A.9. Proposals will be assessed case by case in the context of the Oxford Local Development Framework policies and will be lower than the parking provision recommended outside the Transport Central Area. Car free development or low level of parking provision will be encouraged, and when in a controlled parking zone will be enforced through exclusion from that controlled parking zone.

A.10. Proposals which are considered to have over-generous parking provision will not be supported. Equally, proposals with substantially reduced parking provision may be unacceptable in some circumstances, for example where this would result in unacceptable parking pressure on existing streets, which could not be reasonably mitigated. The onus is on the developer to show that the implications of the parking provision are acceptable.

Car-free development

A.11. Car-free development is defined in this document as accommodation for people who are prepared to relinquish their right to keep a private car in Oxford. Car-free

development is encouraged, which can bring significant benefits where properly implemented in appropriate locations.

A.12. Car-free development will be considered in Oxford provided that there are excellent alternatives to the car, shops and services are provided near by, and the car-free status of the development can realistically be enforced by planning condition, planning obligation, on-street parking controls or other means. The onus is on the developer to demonstrate that there are no adverse implications.

A.13. Many smaller residential proposals, involving domestic extensions, subdivision of a dwelling house into flats, and small infill development, do not specifically provide additional parking. These may be described as 'car parking free'.

A.14. The addition of a few dwellings without the provision of additional parking spaces to a particular area may be acceptable, either where there is reasonable and safe on-street parking capacity (as made clear by appropriate supporting information) or where there is excellent accessibility for those without a car.

Low car housing

A.15. An alternative to car-free residential development is 'low car' (or 'low parking') housing, where proposed parking provision is significantly below the average parking ownership in the area. Such proposals will generally be assessed using the same principles as for car parking free development.

Car clubs

A.16. Larger car-free developments will be encouraged to incorporate or otherwise support a car club, which can be an attractive alternative to private car ownership and boost the attractiveness of car-free housing.

A.17. A car club provider makes cars available to local residents, and they are then shared between several households on a 'pay-as-you-go' basis.

A.18. Car clubs are particularly suited to areas of high-density development and areas with good accessibility to local services and public transport.

Unallocated parking

A.19. In general proposals with unallocated parking will be supported with up to 100% unallocated parking within a controlled parking zone or for Home Zone proposals.

Garages

A.20. The provision of residential car parking in the form of garages will be discouraged within the City, as evidence suggests they are less well used than other forms of residential parking.

Conversion of Front Gardens to Parking Areas

A.21. Many planning applications propose the conversion of private amenity space at the front of dwellings to hard-standing, to provide additional on-plot parking. This is particularly common where houses are subdivided into flats, and may be considered necessary to prevent undue pressure on the public highway.

A.22. However the cumulative impact of multiple hard-surfaced parking areas can change the character of an area and also significantly increase surface water run-off, which can, in turn, increase local flood risk. Also, the benefit of providing off-street spaces as 'front garden parking' will need to be weighed against the loss of existing on-street capacity as a result of new or extended drop-kerb access. Therefore each case will be considered on its merits.

B. APPENDIX B – Parking Standards for major urban areas in the Cherwell District Council area

B.1. The parishes which define the major urban areas in Cherwell are: Banbury Neithrop, Banbury Grimsbury and Castle, Banbury Calthorpe, Banbury Easington, Bloxham and Bodicote, Adderbury, Bicester East, Bicester Town, Bicester South, Yarnton Gosford and Water Eaton, Kidlington South, and Kidlington North.

B.2. The car parking provision in new developments for major urban areas in the Cherwell District Council area are set out in Table B1:

Table B1: Car parking provision in new developments for major urban areas in the Cherwell District Council area

Rooms	Bedrooms	number of unallocated spaces	number of additional unallocated spaces when one allocated space per dwelling is provided	number of additional unallocated spaces when two allocated space per dwelling is provided
	1	1.2	0.4	see note 1
4	2	1.4	0.6	0.3 (see note 2)
5	2/3	1.5	0.7	0.3 (see note 2)
6	3	1.7	0.8	0.3 (see note 2)
7	3/4	1.9	1.0	0.4
8	4+	2.2	1.3	0.5

Note 1: Two allocated spaces will not be provided for 1 bedroom dwellings.

Note 2: This calculation only applies in developments of 4 or more, hence for numbers of dwellings up to and including 3 when two unallocated provided then no additional unallocated spaces will be provided.

Note 3: The Council will consider North West Bicester Ecotown as a special case provided that certain minimum criteria are met. If there is a full range of every day services provided within easy walking or cycling distance of the dwelling and convenient access to an efficient public transport system accessing a wider range of services including employment, one allocated car parking space per dwelling will be required, regardless of dwelling size or tenure. This may be on plot or off plot. Off plot provision may be grouped in a parking court provided the courts are small, close by, secure and conveniently accessed. Additional unallocated off plot car parking may also be provided according to the principles of this document up to a maximum of one space per dwelling. A lower standard of parking may be acceptable

dependent upon the layout and accessibility to services and to other modes of transport in agreement with the Highway Authority.

It is understood that restricting parking space does not necessarily restrict car ownership or car use. However, as a package of proposals working together to produce modal shift away from car use, a reduction in car parking provision, particularly on plot, would be appropriate. During pre-application discussions we will ask for a range of alternative parking solutions to be trialed in the exemplar phase so that the success of each approach could be monitored.

The approach to the provision of parking is a standard one and is most disappointing: on plot and rear garage courts. The provision is also high. The spaces appear to be all allocated. All dwellings have garages, but these have been deliberately designed to be below the minimum space standards to qualify for contributing to parking provision. This results in additional spaces being provided which takes the over-all provision above the standard. We would normally expect to see a plan indicating which off plot garages and parking spaces are attributed to which house, so that we can assess the practicality of the parking provision. We would also expect to see the provision for visitor spaces on the highway indicated. Whilst it is understood that the underlying approach was to ensure that access to the car is inconvenient relative to walking, cycling and public transport,

- this approach only seems to have been applied to the terraced 2 and 3 bedroomed houses, not the detached 4 and 5 bedroomed houses, where there is convenient on plot overprovision
- as with any development, consideration also needs to be given to how visitors arriving by car will navigate to the property, where they will park and how they will enter the premises
- similarly how deliveries will be made

C. APPENDIX C – Parking Standards for parking standards for all areas in Oxfordshire (other than the City of Oxford and Cherwell major Urban Areas)

C.1. Car parking provision for all other areas of Oxfordshire (other than defined above) are set out in Table C1:

Table C1: Car parking provision in new developments for all areas of Oxfordshire (other than the City of Oxford and Cherwell major urban areas)

Rooms	Bedrooms	number of unallocated spaces	number of additional unallocated spaces when one allocated space per dwelling is provided	number of additional unallocated spaces when two allocated space per dwelling is provided
	1	1.2	0.4	see note 1
4	2	1.4	0.6	0.3 (see note 2)
5	2/3	1.6	0.8	0.3 (see note 2)
6	3	1.8	0.9	0.4 (see note 2)
7	3/4	2.1	1.1	0.5
8	4+	2.4	1.5	0.6

Note 1: Two allocated spaces will not be provided for 1 bedroom dwellings.

Note 2: This calculation only applies in developments of 4 or more, hence for numbers of dwellings up to and including 3 when two unallocated provided then no additional unallocated spaces will be provided.

D. APPENDIX D – Example Calculation of Parking Allocation

Example 1

A proposed development has 22 No. 2 bed and 5 No. 3bed houses and 11 No I bed flats. The site is located in a Market Town (not Cherwell). The developer has decided that the houses will have 2 allocated spaces each and the flats will have one unallocated parking space per flat. The tables are now used to calculate the remaining unallocated spaces for the houses and the total number of spaces for the flats.

Table: Example Forecast Parking Demand

Dwelling Type	No. Units	Allocated Spaces	Unallocated Spaces
1 bed Flat	11	-	11 x 1.2 =13
2 bed House	22	44	22 x 0.3=7
3 Bed House	5	10	5 x 0.4=2
Total	**37**	**54**	**22**

The result of the calculation may have an impact on the design of the road and housing layout. The developer in consultation with the Planning and Highway Authorities may wish to alter the layout design and refine the parking mix and exact location.

If it was decided that the 2 bed houses had only one allocated space each then the totals for allocated spaces and unallocated spaces would be 22 and 18 respectively. The total number of spaces for the 2 bed houses would be 40 instead of 51. This is a clear indication of a choice which would be more efficient.