East Sussex
County Council

Guidance for Parking at New Residential Development

The purpose of this document is to give the Local Planning Authorities specific, evidence based parking guidelines to enable them to apply local factors and characteristics when formulating parking provision at new residential development. It is considered that this Guidance will offer a more flexible approach to defining optimum levels of car parking provision and will replace the residential aspect of the previous document 'Parking Standards at Development (February 2002)'.

1. Introduction

Parking is often the single most emotive issue that can cause concern and distress in a local community. Pavement parking, obstruction of driveways and damage to soft landscaping and footways are just some examples of what can occur as a result of parking problems. In some cases, emergency or refuse vehicles are unable to pass as a result of obstructive parking.

In January 2011, the Coalition Government decided to remove maximum parking standards with regard to residential parking. The Government concluded that previous policies have directly resulted in an increased level of on-street parking consequently causing congestion and potential hazards for pedestrians.

While the emphasis remains on local planning and highway authorities to set parking standards for their areas, it is recognised that due consideration should be given to local circumstances, accessibility and local car ownership levels.

The recently published National Planning Policy Framework (NPPF) echoes these sentiments with paragraph 39 stating, "If setting local parking standards for residential and non-residential development, local planning authorities should take into account:

- the accessibility of the development;
- the type, mix and use of development;
- the availability of and opportunities for public transport;
- local car ownership levels; and
- an overall need to reduce the use of high-emission vehicles"

Residential Car Parking Research (May 2007), a report published by the Department for Communities and Local Government (CLG) identified that car ownership levels can vary greatly depending on these factors:

- Location of development
- Size of dwelling
- Type of tenure (private or affordable)
- How parking is to be provided (e.g. allocated/on plot, or unallocated)
- The type of dwelling (e.g. house or flat)

The report also identifies the 2001 Census data as a starting point to try to understand local levels of car ownership. With the uncertainty surrounding the release date of the 2011 Census data it is considered appropriate to utilise the former to ascertain the expected levels of car ownership.

This guidance document for East Sussex supports the suggested methodology and is in accordance with National Planning Policy Framework.

2. The Optimum Approach for East Sussex

It is important to understand the characteristics of East Sussex before identifying appropriate parking standards. East Sussex consists of three Districts (Wealden, Rother and Lewes) and two Boroughs (Hastings and Eastbourne). While the two Boroughs could be classed as urban, the three Districts are predominantly rural with urban settlements located throughout.

Therefore it is clear that the advice specified in the National Planning Policy Framework needs to be carefully considered for each individual Local Authority. In order to create a robust evidence base East Sussex County Council commissioned both site surveys and household questionnaires.

A number of site surveys were undertaken to assess the current parking trends of new residential developments across East Sussex. The aim of conducting these site surveys was to give an indication of how effective the overall site layout was and to ascertain the existing level of car parking, both on and off street.

Household questionnaires were delivered in November 2011 to approximately 8000 properties built between 2001 and 2010 with a response rate of approximately 29% achieved. The responses have been used to formulate reliable evidence which has helped determine aspects of this guidance document.

As highlighted in the document Residential Car Parking Research (May 2007), the use of the 2001 Census data is considered appropriate as a starting point for estimating levels of car ownership. Full Census 2001 car ownership was analysed as part of the study**.**

The data showed that in East Sussex, car ownership levels were influenced by dwelling size, type and tenure and that different levels of car ownership were apparent in each of the districts and boroughs.

In comparing Census 2001 car ownership with the 2011 surveys it was shown that 2011 survey car ownership was significantly higher than the 2001 Census data and as expected houses have higher car ownership than flats. The data also identifies that affordable dwellings have lower car ownership rates compared with private dwellings, but interestingly the gap is closing indicating that tenure is not a significant factor in setting local parking standards within East Sussex.

However, it is noted that Housing Association and Social Rented units are likely to have a significantly lower demand for on-site parking provision and will need to be considered and where appropriate justified on a case by case basis.

Upon release of the 2011 Census Data it will be important to re-assess the relationship between private and affordable car ownership.

	Houses			Flats		
	East Sussex 2001 Census	East Sussex 2011 Survey	Increase in Cars per HH	East Sussex 2001 Census	East Sussex 2011 Survey	Increase in Cars per HH
Private	1.42	1.63	0.21	0.75	1.12	0.37
Affordable	0.93	1.47	0.53	0.48	1.07	0.59

Table 1 – Comparison of 2001 Census Data and 2011 Household Questionnaires

3. Design Issues

Determining the appropriate level of overall provision will help establish whether the optimum number of parking spaces can be provided. However, the type of spaces being provided (i.e. location, design, control and management) greatly influences the effectiveness of provision. Poor design can lead to problems that can be detrimental to pedestrian and road safety as demonstrated in the example below.

A lack of visitor or unallocated parking can have an adverse effect on residential roads.

The perceived success of residential parking can often be determined by the design. Under-utilised on-site parking areas and congested on-street parking would indicate that the parking design was not effective.

With regard to the type of space provided, designers are faced with a number of options which include parking courtyards, tandem parking, allocated spaces, un-allocated spaces, on-street, garages, car-ports and driveway parking. Most car owners like to be able to see their vehicles and to know that they are parked securely. It is therefore imperative that parking courtyards are overlooked and/or secured to ensure that residents are likely to prefer this to convenient ad-hoc on-street parking. Private allocated parking spaces on-site are the most common and are preferred by this highway authority as shown in the example below.

Tandem parking is unlikely to be utilised to its potential, especially if both cars are in regular use. Acceptance of this by designers may lead to extra un-allocated provision being considered. Where

possible echelon parking should be considered due to the manoeuvring benefits within limited spaces and the lack of turning space required.

Parking provision should be appropriate to the location, based on local ward data, and not be detrimental to road safety and should not create additional pressure on existing streets that cannot be mitigated. Parking should not be over generous as this will be an inefficient use of land.

On-site allocated parking is one example of good parking design

Manual for Streets refers to a multitude of documents on parking design. 'Car Parking: What Works Where' by English Partnership is a toolkit that examines parking treatments and their effectiveness. This highlights the current design setting of providing rear parking courts that remove the parking from property frontages. Although this has left streets for the free movement of vehicles it has reduced garden sizes which are now used for parking, created streets that have little activity and reduced street width as residents who cannot see their vehicles in rear parking courts due to poor design choose to park on the street inappropriately. Developments should be flexible in how parking is provided balancing between on-street and on-plot.

To ensure that the level of parking for a given development functions as intended, it is essential that both garages and car ports are large enough to comfortably accommodate vehicles. A garage can only be considered an allocated parking space if it meets the minimum dimensions of 6m x 3m internally. These dimensions could be increased to 7m x 3m in the absence of any suitable cycle

provision. Open Car Ports are more likely to be used for car parking and minimum dimensions of 2.8m wide x 5.0m should be applied.

Safe and secure cycle storage facilities are equally important at new development as cycling has the potential to replace short car journeys. Requirements need to take account of the size and type of dwelling. The recommended levels of cycle provision can be found in the table below.

Type of Dwelling:	Size (number of bedrooms):	Cycle provision (per unit):
Flat	1 and 2 bedrooms	0.5 spaces if communal storage 1 space if no communal storage
Flat	3 bedrooms or more	1 space
House	1 and 2 bedrooms	1 space
House	3 bedrooms or more	2 spaces

Motorcycle and disabled bay provision should be provided in accordance with guidance contained with Manual for Streets. Designers are also encouraged to designate convenient storage areas for refuse and recycling bins to help prevent the loss of parking areas at any new development.

In some circumstances, it may be appropriate to provide slightly reduced levels of car parking. While this will need to be clearly and robustly demonstrated at the design stage, there are mitigation measures that could be provided to help achieve lower levels of parking such as:

- High levels of accessibility

(i.e. the site is located within appropriate walking distance to a bus and train services to allow the use of non-car modes to travel to local amenities and facilities/commuting)

- Travel Plans

(i.e. a travel plan is submitted with realistic targets aimed at reducing car ownership levels)

- Car Clubs

(i.e. access to a vehicle that can be shared by residents of the development, as well as a designated parking bay at a convenient and accessible location to help promote the use)

Proposals that will have an impact on existing Controlled Parking Zones (CPZ) or existing on-street parking restrictions will need to be carefully considered. It may well be appropriate to restrict or limit the ability of residents from qualifying for either resident or visitor parking permits in order to control and manage the likely level of parking. If the introduction of a Traffic Regulation Order (TRO) (or amendments to an existing Traffic Regulation Order) is required, then the developer would be expected to fund all costs associated with the administration and implementation.

Provision of Disabled Parking Bays should be considered during the design stage. While the majority of larger dwellings will have adequate on-site parking available, it may be necessary to include unallocated Disabled Parking Bays for flatted developments. Where it is not possible to access the footway directly from the vehicle, and wherever space is available, parking bays should be at least 3300mm wide in order to allow the driver or passenger to get out safely on the side where traffic may be passing.

4. The Calculation Tool

Background:

A calculation tool has been developed that uses Census Ward data and allows site specific determination of predicted parking demand by entering data including the location (ward) dwelling type (house or flat) size (number of bedrooms) and the way parking is provided (allocated or unallocated). Expected levels of car ownership and demand will be calculated using Census 2001 ward data adjusted using 2011 household survey data. Corrected data will take account of expected growth to 2026 using TEMPRO data.

The tool automatically calculates the unallocated parking demand and demand for visitors. By altering the allocation of parking the influence on the total parking demand is automatically updated so that the right balance of parking can be determined so that it is an efficient use of land.

Visitor parking demands are generally clustered at evenings and weekends. Often some residents themselves are visiting and therefore by providing unallocated parking spaces, a balance can be met. If there is additional demand generated by visitors and parking is solely allocated then on-street parking will exacerbate. Studies by Noble and Jenks have shown that the demand for residents is 1 for every 5 dwellings (20%). If more than 50% of parking is allocated at a development then this additional demand should be added. The tool will automatically add this demand.

The tool will give the appropriate level of parking provision and should be used as a guide. Some flexibility should be applied in determining the actual provision at developments a guide of +/- 5% should be appropriate but will depend on the location and be under discretion of policy officers and be supported with justification.

User Guide:

The East Sussex Residential Parking Demand Calculator has been designed to calculate the number of parking spaces required at new residential development on a site specific basis. The calculator predicts levels of car ownership using information about the location (ward), unit type, size and the number of allocated spaces. This guidance aims to inform users about how to use the calculator and will be updated by East Sussex County Council as necessary.

The user is only required to enter data into the columns with the marked blue arrows only.

- Opening the Tool

When opening the calculator, click "Enable Macros" as these play an important role in calculating parking demand.

Before inputting any information into the spreadsheet, the user should click the "Reset" button on the summary worksheet.

- Ward Information

The calculator uses information about car ownership in wards to calculate levels of car ownership on a site-specific basis. You must know the ward in which the development is located in order to use the tool. To find the appropriate ward it may be necessary to refer to the following link and input postcode or search on Map viewer.

http://www.neighbourhood.statistics.gov.uk/dissemination/

A map showing the wards in East Sussex is available using the following link or by copying the URL into your internet browser:

http://www.eastsussex.gov.uk/community/local/factsandfigures/mapsusedforstatistics/default.htm

If you know the postcode for the site, the ward finder can be used by inputting the postcode **without** a space between the characters.

For every development, the user should specify three wards:

- Ward 1 – the ward in which the development is located
- Ward 2 & 3 – either i) the two nearest wards (other than ward 1), or ii) two nearby wards where the existing housing stock is similar to the proposed development

- Unit Type

The user should specify whether the units are flats or houses.

- Dwelling Size

The user should specify how many bedrooms rooms the units will have as this figure will be the basis for the tool to calculate appropriate parking standards. This measurement of dwelling size has been used because the number of bedrooms is a coarse measure of dwelling size and significant variation in car ownership has been found between dwellings with the same number of bedrooms.

Habitable rooms include all living rooms, bedrooms and kitchens, but **not** bathrooms, WCs or circulation space. If the number of bedrooms is known, but the number of habitable rooms is not, then the following conversion should be used until this information is available. Similar if the number of bedrooms have not been specified then the comparison between bedrooms and habitable will be used.

The bedroom – habitable conversion table is shown below:

Bedroom – Habitable Room Conversion
- **Flats**
Studio = 1 room
1 bed = 2 rooms (1 bedroom, 1 kitchen/living room)
2 bed = 3 rooms (2 bedrooms, 1 kitchen/living room)
3 bed = 4 rooms (3 bedrooms, 1 kitchen/living room)
4 bed = 5 rooms (4 bedrooms, 1 kitchen/living room)
- **Houses**
1 bed = 3 rooms (1 bedroom, 1 kitchen, 1 living room)
2 bed = 4 rooms (2 bedrooms, 1 kitchen, 1 living room)
3 bed = 5 rooms (3 bedrooms, 1 kitchen, 1 living room)
4 bed = 6 rooms (4 bedrooms, 1 kitchen, 1 living room)
5 bed = 7 rooms (5 bedrooms, 1 kitchen, 1 living room)

- Allocated Parking

The user should specify how many parking spaces will be specifically allocated to individual units. Allocated spaces include numbered parking bays, driveways, garages and parking barns.

- Description of Totals

The totals provided by the spreadsheet reflect the expected needs of the development and should be considered in the design of the development.

The following list of cells corresponds to cells in the Residential Parking Demand Calculator.

- **Cell J36** – the input total number of allocated spaces (will depend on the design of the development)
- **Cell L36** – The calculated number of unallocated spaces (in addition to those which are being allocated) required to accommodate residents of the development

- **Cell N36** – The calculated total number of unallocated spaces which would be required to accommodate visitors to the development (will remain zero if less than 50% of spaces are allocated to residents)

- **Cell O36** – The calculated expected level of demand for parking at the development.

5. Future Aspirations

Census Data Review

Full Census 2001 car ownership was analysed as part of the study and is has been provided in **Appendix C.** The data showed that in East Sussex, car ownership levels were influenced by dwelling size, type and that different levels of car ownership were apparent in each district/borough. It will be important to update the data as when the latest Census Data (2011) is released.

Electric Car(s)

It is acknowledged that this is an emerging technology but one that is encouraged by this County Council. Waiting bays and charging points must be designated and located conveniently to where the electric cars can be parked. At present, it is difficult to provide designated electric car parking bays within the curtilage of a dwelling due to the uncertainty of ownership but it is important to recognise that where possible, development will encourage and accommodate electric cars.

Footnotes and Hyperlinks:

- Ministerial Guidance

  http://www.communities.gov.uk/documents/planningandbuilding/pdf/1817550.pdf

- Manual for Streets I

  http://assets.dft.gov.uk/publications/manual-for-streets/pdfmanforstreets.pdf

- Car Parking: What Works Where

  http://www.designforhomes.org/wp-content/uploads/2012/03/KevinMcGeough.pdf

- Guidance Note: Residential Parking

  http://www.ciht.org.uk/en/events/events-listing.cfm/residential-parking-a-new-guidance-note-from-ciht