

# CAR PARKS



**HI-WAY**  
SERVICES  
LIMITED

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# INTRODUCTION

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Your car park is the first thing a prospective client, team member or important visitor sees. It can set the tone for their visit and set their opinion of you before you've even met.

With this in mind are you happy that your car park works not only from a parking perspective but from a company brand perspective? Maybe it's time to give your car park a little TLC.



To help you think about how you create a car park that works we have put together this guide. Hopefully it will help you design a car park you can be proud of.

Please note that there is legislation in a number of areas that impact on car park design, health and safety and equality are just a couple of examples. You should seek expert advice to ensure you meet your legal obligation.

Many local authorities also produce guidance on parking design issues. You should check with the appropriate authorities as part of any design process.

# LAYOUT

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Often the primary concern of the car park owner is with maximising the number of spaces that can be accommodated in a given area. There is no simple answer and there is no one-size-fits-all solution. Indeed, there are specialist companies who make a living optimising car park design using mathematical modelling techniques and computer aided design solutions.

There are some key considerations if you decide to design it yourself:

## TYPES OF VEHICLE

What type and size of vehicles will use the car park. Clearly heavy goods vehicles for example require more space to park and manoeuvre and have much greater turning circles than cars and bikes.

Even if the car park is designed primarily for cars, motor bikes and cycles though should be given to access and use for emergency vehicles and perhaps light good vehicles.

## PEDESTRIAN ACCESS AND SAFETY

Everyone who uses a car park will also be a pedestrian user at some point. Ensuring that they are safe whilst on foot is an important consideration. Some of the important considerations are:

- Providing sufficient space for cars and pedestrians to move around safely.
- Sight lines, so that pedestrians can see traffic which may present a hazard
- Clear marking of any trip hazards e.g. speed bumps (see below).
- Clear marking of entrances and exits
- Lighting to ensure that pedestrians can safely get around in the dark.



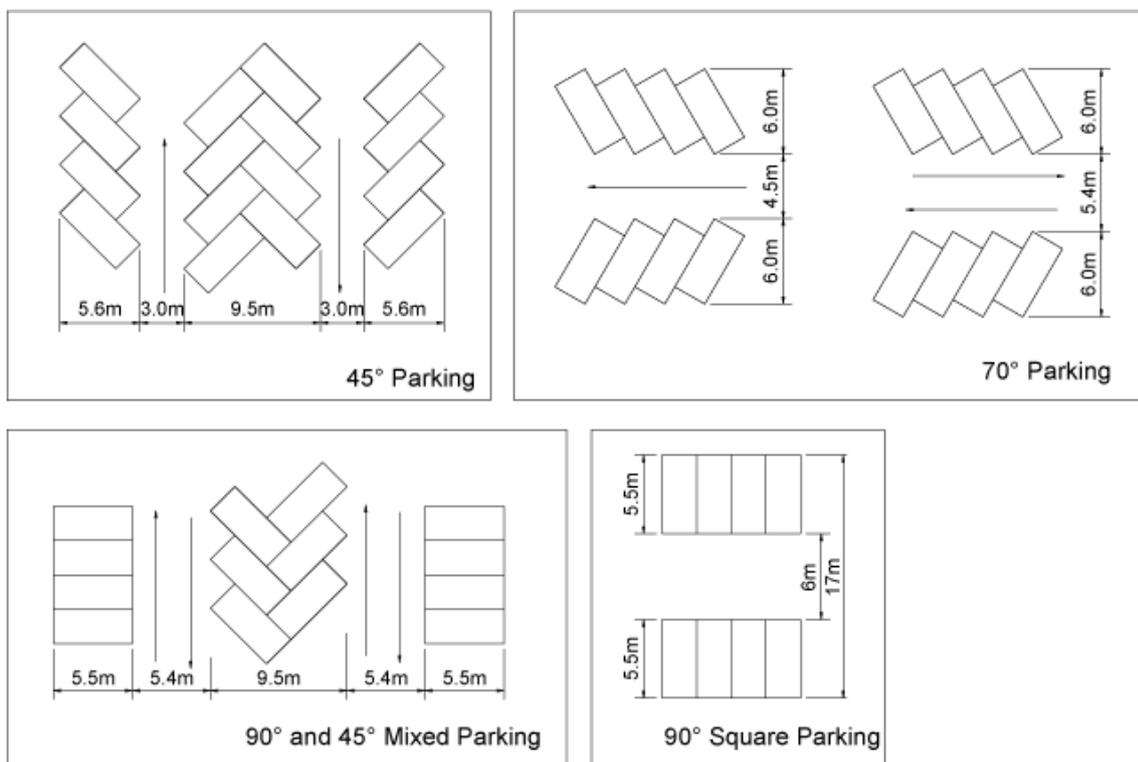
Pedestrian routes can be installed where space is available to do so, these routes should be segregated from vehicle routes if possible, they need to be clearly marked so drivers can identify them as a route for pedestrians, any areas where the route crosses a traffic lane should be marked with crossing panels.

## TRAFFIC FLOW

Car Parks, wherever possible should use a one-way circulatory flow of traffic around the parking areas. This provides the safest and simplest flow of traffic. The routes should be identified by clear and easily visible directional arrows and text. Where there is a risk of drivers reaching excessive speeds that may be dangerous to other users of the car park then speed restrictors (speed bumps) should be installed.

Dead-ends should be avoided if possible, they make parking and manoeuvring more difficult and introduce two-way traffic flows. Contra-flows, where vehicles are required to drive on the “wrong” side of the road (on the right in the UK) should also be avoided. They are confusing to both motorists and pedestrians and a safety hazard.

The below figure shows some variants of parking bay layouts.



Examples of typical parking layouts

## BAY SIZE

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The size of a parking bay will be determined by the type of bay, the vehicle to be accommodated and the road width of the car park.

### VEHICLE

The following measurements are the minimum recommended for the different types of vehicle:

- Car 2.4 metres x 4.8 metres
- Light Vans 2.4 metres x 5.5 metres
- Rigid Vehicles 3.5 metres x 14.0 metres
- Articulated Vehicles 3.5 metres x 18.5 metres
- Coaches (60 seats) 3.5 metres x 14.0 metres

### TYPE OF BAY

A bay in a square or herring bone type layout needs only to accommodate the length of the vehicle. A parallel parking bay needs to be longer to allow manoeuvring into and out of the bay. Typically, a parallel parking bay would be 6m long.

### ROAD WIDTH

The narrower the width of the roads in the car park the more difficult the manoeuvring in the parking space and therefore the wider the space needs to be to allow drivers access to the bay.

## DISABLED PARKING BAYS

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One of the most common queries we receive concerns the number and size of disabled parking bays that should be provided.

Perhaps surprisingly there is no specific legislation on the subject. The Equality Act 2010 deals with the way shops and other organisations treat people with disabilities but it sets out no specific requirements for parking. There is, however, guidance in the British Standards Institute's 'Code of Practice for the design of buildings and their approaches to meet the needs of disabled people'. The code is highly likely to be persuasive and a good reference point for a Court as to what constitutes "reasonable" provision. In other words, while there is no specific statutory requirement to provide a set number of spaces, a court may still decide a shop or car park operator is in breach of the Act if it doesn't provide enough.

### NUMBER OF SPACES

The code recommends that commercial premises with designated off-street parking have one space for every employee who is a disabled motorist, plus 5% of the total capacity for visiting motorists and a further 4% should be enlarged standard spaces.

## SIZE OF SPACES

Parking bays for people with disabilities should be designed so that drivers and passengers, either of whom may have a disability, can get in and out of the car easily and safely. Bays should be longer and wider than the standard bay size. This ensures easy access from the side and the rear for those with wheelchairs, and protects people with disabilities from moving traffic when they cannot get in or out of their car on the footway side of a bay on the highway.

Disabled access parking spaces should be 2400mm x 4800mm with a 1200mm wide marked access zone between spaces and a 1200mm wide safety zone for boot access.

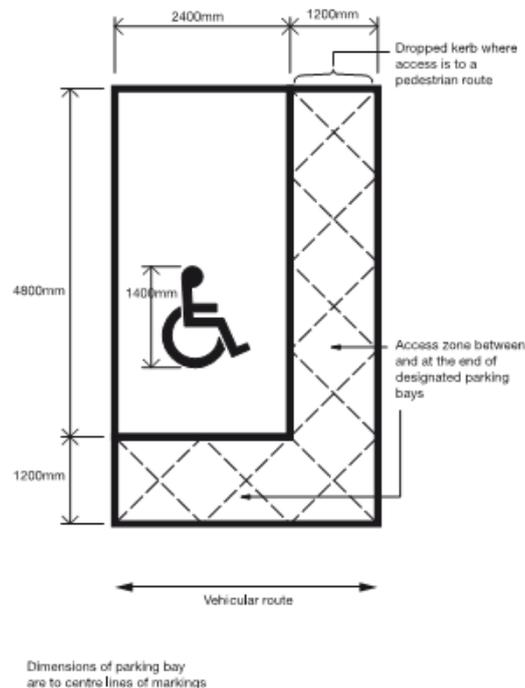
## LOCATION

Spaces for people with disabilities should be located close to entrances, where possible, should be convenient to use. Thought should be given not only to proximity to buildings or car park exits but also to the route to the buildings or exits. Use of drop kerbs to access pavements for example and ensuring that the route is wide enough and avoids obstructions.

## MARKING, SIGNAGE AND POLICING

Disabled bays can be highlighted to the users with a different colour bay line and a solid blue colour to the hatched area around the bay. The use of approved disabled bay marking in the space and signage ensure that car park users are aware that the spaces are designated for disabled users.

There should be some way of policing the use of bays to ensure that non-disabled users are challenged if they use them.



## PARENT AND CHILD PARKING

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Parents with young children could be considered as having temporary mobility handicap. Consideration should be given to providing accessible parking spaces with a specification similar to a disabled bay but with specific marking and signage.

## MOTORCYCLE PARKING

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### BAY SIZE

Motorcycle parking bays are often not marked out for individual vehicles but rather as a large continuous space allowing users the most effective use of the space available. Motorcycles range in length from around 1900 mm for a moped to 2500 mm for a large bike. In practice most motor cycles are parked with the handlebars turned to the locked position which reduces the effective length of the cycle, so even the largest machines should be capable of parking across a 2100 mm bay.

### SECURITY

Motorcycles are valuable machines and relatively vulnerable to theft. Consideration should be given to providing anchor points to allow users to secure their vehicles with chains.

There are several anchoring solutions but usually the simplest are not only the cheapest but the most attractive to users. Where the motor cycles park at right angles to the kerb, a simple horizontal rail affixed at the kerb side and running the length of the bay presents an effective solution. The rail should be 600mm high to allow the chain to be attached to the motorcycle wheel.

Other security solutions which can be considered are appropriate lighting and CCTV.

## TRAFFIC MOVEMENT

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Car Parks, wherever possible should incorporate a one-way circulatory movement of traffic around the parking areas, clear directional arrows & text should be visible to avoid confusion, speed restrictors (speed bumps) should be installed wherever there is a potential risk of injury to members of the public or staff.

## WAY-FINDING

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Particularly useful in large car parks, for example at retail centres, way-finding solutions remove the problems that users of the car park have in working out where to go to reach their desired destination and just as importantly to find their car again on their return!



Way-Finding is a simple way to help car park users locate shops, pay stations and their car. Way-Finding can be in the form of a colour coded pedestrian walkways which have directional arrows and text to guide the user to a particular destination. Virtually any colour and font can be created for Way-Finding and anti-slip properties can be added to paints to ensure walkways are non-slip.

Discrete areas of the car park are also colour coded and signed with text so that visitors can easily locate their car on their return.

## ESTHETIC CONCERNS

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Despite it's very functional purpose a car park doesn't have to be and indeed many would say shouldn't be a boring expanse of tarmac.

Many car parks utilise different surfaces, borders and landscaping to create a more defined and pleasing look to the area.

## DECORATIVE SURFACING

There are numerous options when considering the car park surface that not only look more attractive than tarmac but can also make a safer surface by utilising high friction materials.



*Before decorative surfacing*



*After decorative surfacing*

Surfaces are available in hot-applied, cold applied, MMA and epoxy resin with aggregate finishes. A range of colours are available to meet any design criteria.

## BRANDING

The car park is increasingly being seen as part of the overall design of a location rather than as a bolt-on. Design motifs are being continued into the car park and companies are using logos to mark out dedicated parking spaces in shared facilities. Today anything is possible!



*Examples of branded parking space markings*

## CONCLUSION

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Hopefully this guide has shown that there is more to a car park than some spare ground and a few lines.

At Hi-Way Services we're passionate about car parks, and while we wouldn't consider them works of art, they can look much better than they often do. We have many years' experience in car park marking and lining, including bespoke markings. We can offer expert advice on car park markings that not only help to make your car park efficient, effective and safe, but also look great. If you are considering giving your car park a facelift we would be happy to help.

Hi-Way Services Ltd

3a Lakesview International Business Park  
Hersden  
Canterbury, Kent  
CT3 4JZ  
Tel: 01227 213131

Email: [robert@hi-way.co.uk](mailto:robert@hi-way.co.uk)