

# **DS.005 Arranging and delineating parking bays**

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# 1 Introduction

#### 1.1 Notes

- This standard explains requirements about the design of designated bays for motor vehicles to wait or load within. This includes bays provided as part of parking zone schemes. It does not
  - explain the circumstances in which such designations should be introduced
  - explain requirements for associated upright signage where bays are to be designated, for which see standard DS.003.
- b. See standard DS.300 for general requirements on the use of traffic signs and road markings, including sign sizes, lighting requirements and the use of sign backing boards.
- c. See the SSDM webpages at www.southwark.gov.uk/ssdm.

#### 1.2 Discussion

- a. Parking bays are defined spaces in the Highway intended for waiting, loading, stopping or standing by vehicles. Bays may be either backed by a Traffic Management Order (TMO) else may be advisory only. If they are backed by a TMO then the times of operation of the bay, and the classes of vehicle that may use them are enforceable by the Highway Authority.
- b. There are several reasons why it may be wished to define a parking space.
  - i. Parking demand management Highway capacity is a finite resource and must be managed carefully to an appropriate balance between the various competing demands on it. In addition to parking demand, this is likely to include space for movement and circulation, for social and trading activities (e.g. seating, play, performance spaces street trading), and and landscaping and infrastructure services (e.g. conventional drainage, green infrastructure, shade trees and planting). In a lot of streets, there

would be little space for these other things were parking demand always met without question.

Parking management involves the allocation of space for certain users at certain times. However, it can vary in it's scale, from allocation of a single space for disabled (blue badge) holders to an area-wide parking zone scheme that prioritises spaces in favour of local residents or short-stay visitors.

Parking by its very definition is the final process in a trip. Therefore, parking management may also be used as a means of traffic restraint. By removing the supply of parking at a destination (e.g. a town centre) visitors will consider using other modes to reach that place. This in turn, improves traffic conditions at and leading to that destination. Less demand for parking and traffic provides greater opportunities for reallocating highway space for public realm improvements.

#### ii. Traffic Management

Parking controls provide an important tool to encourage the smooth flow of traffic (be this pedestrian, cyclist or motorist). For example, parking restrictions are frequently applied at junctions to deter inconsiderate or dangerous parking that may obstruct or slow traffic or block access. Restrictions also enable the Highway Authority to enforce against any violations.

#### iii. Road safety and accessibility

Inappropriately parked vehicles can obscure sightlines between road users. This can be a cause of accidents. Similarly, vehicles parked in front of Vehicle Crossings and Formal Crossing facilities can obstruct pedestrians and other vehicles – so forcing users to attempt crossing or access at more risky unintended locations. This is of particular concern for less mobile pedestrians (like older people and the



blind and partially sighted) who rely heavily upon Formal Crossing facilities. Lastly, inappropriately parked vehicles may pose a hazard for other users of the highway when attempting to negotiate around them. Positively marking out safe spaces for parking helps avoid all this.

Conversely, where thev are appropriately designed and located, defined spaces may actually contribute to road safety by helping to slow vehicles. This may either be through the visual presence of parked vehicles or the fact that users of the carriageway must slow to negotiate them. Spaces located in echelon formation tend to be most successful in this respect (though this is unlikely appropriate environments).

## iv. Visual amenity

Haphazard parking frequently creates a scruffy and disorderly street scene. Carefully organising vehicles into bays helps to avoid this.

- In order for bays to be defined, they must be marked out with particular types of road marking that are prescribed under statute (the TSRGD). If they are designated bays then they also need to be supported by upright signs (for which see standard DS.003) and - as discussed in 'a' TMOs. Until recently the only road markings that could be used under statute were various types of dashed white line marking. However, as part of broader national efforts to reduce signage related street clutter, the Secretary of State for Transport has recently issued various London Councils (including Southwark Council) with a special Area Wide Authorisation that permits them to mark out bays using contrasting surface materials.
- d. If parking bays are to be designated for use (which may be either at certain times of the day and/or by certain classes of vehicle) then the Highway Authority must give public notice of its intent and carry out statutory

consultation. Any objection must be considered, determined and the objector informed of the Council's decision.

# 2 Use requirements

# 2.1 Requirement to formerly designate parking space within bays

# 2.1.1 New streets and spaces

In new streets and spaces all intended parking space for motorists should be formalised into designated bays irrespective of use. Areas for loading may occasionally be permitted by level 1 departure to go undesignated (e.g. by leaving stretches of kerb where waiting restrictions exist but no loading restrictions. SO allowing drivers of commercial vehicles to park there to load/unload for brief periods). However, this is not acceptable within parts of streets designated for Shared Use between pedestrians and vehicles. Loading within such areas must always be formalised within designated bays.

# 2.1.2 Existing streets and spaces

It is not the place of this standard to prescribe the circumstances when parking bays (or indeed parking zones) should be introduced in existing streets and spaces - only to explain how they must be designed and configured when a separate decision is taken that they are needed. However, if there are existing waiting or loading restrictions at a location (including those related to parking zones) then - should it be wished to permit waiting or loading there - introducing a bay may sometimes be required. In some instances, waiting or loading may be permitted by simply removing or modifying the restrictions against that activity without positively defining a bay.



# 3 Design requirements

Configuration	Use requirements	Bay dimensions (metres) – see note 1	
		Width	Length
Parallel to carriageway	Use unrestricted	See Table 2	<ul> <li>6m for each individual disabled parking space</li> <li>7m for each individual ambulance space</li> <li>7m minimum for continuous stretches of loading bays (see note 3)</li> <li>For all other types, 6m for spaces at either end of a bay and 5.5m for each intermediary space. The total length of any bay should be ≥ 12m for Inset Bays and ≥ 11m for all others. See also note 3</li> </ul>
90 degree echelon (see note 2) 60 degree echelon (see note 2) 45 degree echelon (see note 2)	<ul> <li>May be permitted on 20mph streets that are not Classified Roads (A or B roads) for groups of 3 or more bays by level 1 departure as '3.2b'</li> <li>Not permitted on 30mph streets</li> </ul>	3m per disabled parking space, ambulance space or loading space where two of these adjoin one another, or 3.5m where a single such space adjoins another space that is not one of these kinds     2.4m for all other types of space	<ul> <li>7m for each ambulance space or loading space</li> <li>5m for all other types of space</li> <li>See also note 4</li> </ul>

# NOTE

- 1) Length means that edge of the carriageway parallel to the flank of a parked vehicle. Width means that edge of the carriageway parallel to the front or rear of a parked vehicle.
- 2) Echelon bays should be orientated so that drivers can exit in the direction of the traffic flow in the nearside lane in forward-gear and without conducting a turn. They will be expected to reverse into the bay.
- 3) If parallel bays are intended to accommodate more than one car/space then spaces should not be individually marked unless instructed otherwise by approving officers.
- 4) If echelon bays are positioned alongside footways and other pedestrian routes then additional clearance values will need to be added when determining effective passing widths along these. This is because users tend to park with their bonnets or boots overhanging footways. See standard DS.208 for further details.

Table 1 - General requirements for parking bays



Is bay inset?	Width of bay		
	Existing streets and spaces	New streets and spaces	
Yes	2.0-2.3m – see note 1	2.3-2.5m	
No	2.0m	2.0-2.3m	
Yes	2 0 2 2m	2.2.2.5m	
No	2.0-2.3111	2.3-2.5m	
Yes	2.7-3.0m		
No			
Yes	2 0 2 2m	2.5m	
No	2.0-2.3111	2.3111	
	No Yes No Yes No Yes No Yes	Yes         2.0-2.3m - see note 1           No         2.0m           Yes         2.0-2.3m           No         2.0-2.3m           Yes         2.0-2.3m	

#### NOTE

- 1) Subject to level 1 departure this width may be reduced to 1.8m.
- 2) Bay may be used by any motor vehicle for the purpose of loading or unloading.
- 3) Bay may only be used by a goods vehicle and will be signed accordingly.

Table 2 - Width requirements for parallel parking bays

#### 3.1 Location considerations

# 3.1.1 Parking within the carriageway

# Locating bays within central median strips

a. Bays should normally be located along the edge of the carriageway - either directly within it or inset into noncarriageway areas as Inset Parking Bays (see note 1). Whilst positioning bays within actual or notional central medians may be considered, it requires level 1 departure. If approving officers are satisfied this is likely to be safe and they are therefore minded to grant this departure, then they should do so subject to the findings of a Road Safety Audit.

NOTE 1: In certain circumstances, the location of spaces within Inset Parking Bays is mandatory. See standard DS.128 for further information.

# <u>Using bays to create horizontal deflection for traffic calming purposes</u>

 Arranging bays to introduce horizontal deflection within the carriageway can be a useful means of calming traffic. However this relies on them being occupied or otherwise defined through the introduction of build outs. Consequently, in order for any speed reduction benefit to be credited to such arrangements, the parking spaces involved must be Inset Bays.

c. As general guidance, bays are typically most successful at encouraging reduced speeds when they adopt a chevron configuration. However, these arrangements have separate safety risks and so may not always be appropriate (see Table 1 for use requirements).

# 3.1.2 Parking on footways (and other non-carriageway areas)

a. Parking bays may not be located on footways or other non-carriageway areas. This includes bays that partially overlap footways. Any existing instances encountered in a project area should be removed as a priority.

NOTE: Where a sufficient effective width to permit pedestrians to pass can be maintained beside existing such bays (see standard DS.208) then it may be possible to convert them into Inset Parking Bays as standard DS.128. However, as this will likely require some lowering of the existing footway within the area of the bay, underground utilities may frustrate this owing to limited cover.



# 3.2 Bay configurations

- Table 1 defines the differing potential bay configurations and related requirements.
- b. As per Table 1, echelon configurations are not permitted on 30mph streets. Use on 20mph streets that are not Classified Roads (A or B roads) may be permitted but requires level 1 departure owing to possible safety issues (see note 1). If approving officers are satisfied that this is likely to be safe and are therefore minded to grant this departure then they should do so subject to the findings of a Road Safety Audit.

NOTE 1: The risk is of conflict between vehicles manoeuvring out of spaces and

passing users of the carriageway cyclists (particularly and pedal motor cyclists). The related trepidation approaching a chevron bay can create may be one of the reasons why seem to be an effective means of calming traffic is many circumstances (see discussion in '3.1.1c').

# 3.3 Dimensions of bays

a. The dimensions of bays when used in different configurations should be as stated in Table 1 and Table 2.

# 3.4 Pull out space within the carriageway to allow entry/exit from bays

a. The minimum width of the carriageway in front of a bay through which vehicles enter or exit it should be as Table 3.

Configuration	Type of bay		
	Loading	All others	
	Required width of pull out s (metres) –	pace within the carriageway see notes	
Parallel to carriageway	3.25m		
90 degree echelon	7.0m	6.0m	
60 degree echelon	4.7m	4.2m	
45 degree echelon	4.1m	3.6	

#### NOTE

- 1) These figures are based on the bay dimensions given in section 3.3. If other bay dimensions are permitted then alternative pull-out distances will need to be agreed with approving officers on a case specific basis. These will need to be based on vehicle autotracking analysis.
- 2) Lesser widths than given in this Table may be permitted by level 1 departure. Computer generated vehicle auto-tracking analysis must be provided to substantiate requests.

Table 3 - Minimum width of pull out space within the carriageway in front of parking bays



#### 3.5 Methods of delineation

# 3.5.1 Review of bay proposals by the Parking Design Manager

 See standard DS.300 for details of the above.

# 3.5.2 Inset Parking Bays

In new streets and spaces, Inset Bays should be delineated using a modular unit surfacing fill to the full area of the bay (e.g. precast concrete blocks, clay pavers or natural stone setts). The surfacing should be visually distinct to the neighbouring surfaces beyond the bay extents. Subject to level departure, it may also be acceptable to use visually distinct materials only around the limits of the bay (rather than as fill to the entire extent of the bay). Any such delineation should be a minimum of 200mm wide. See the Surfacing Materials palette for details of the different materials that may be used in different SSDM/RP designations.

NOTE: In October 2011 the Highway Authority received an Area-Wide Authorisation under Sections 64 and 65 of the Road Traffic Act 1984 from the Secretary of State for Transport to permit use of these alternative bay delineation methods. This can be found at www.dft.gov.uk/traffic-auths/ as Case 2732.

- b. In <u>existing</u> streets and spaces bays may be defined using either
  - i. A contrasting modular unit surface as 'a
  - ii. one of the conventional road markings in Table 4 (as appropriate to the use of the bay).

# 3.5.3 Other types of bay

a. In <u>new</u> streets and spaces, bays that are not inset may be delineated using any of the techniques for Inset Parking Bays permitted as section 3.5.2. The appropriate delineated will be agreed with approving officers on a case specific basis. Approving Officers have discretion to instruct use of whichever they deem appropriate.

NOTE: Whilst delineation using contrasting materials as '3.5.2a' is generally preferred, this may not be visually appropriate in all circumstances. For instance, were the carriageway to be black-top surfaced and only occasional bays provided within this here or there, then contrasting surfaces may appear out of place.

b. In <u>existing</u> streets and spaces bays may either be delineated with a contrasting surface as 'a' or with one of the conventional road markings in Table 2 (as appropriate to the use of the bay).

A. Use designation of	B. Acceptable	C. Legend	D. Is legend marking as (C) still
bay	TSRGD	marking to be	required if bay is delineated using a
	delineation	used with (B) -	contrasting surface as '3.5.2a' rather
	marking	see note 1	than a marking as (B)
Undesignated	1028.4	None	N/A
Permit holder, paid	1028.4	None	No – and none to be used
parking, shared-use			
and limited waiting			
Disabled	Any permitted	"DISABLED"	
Loading	by TSRGD	"LOADING ONLY"	Yes unless Special Authorisation
Doctor		"DOCTOR"	is obtained from Secretary of
Ambulance		"AMBULANCES"	State for Transport –see note 2
Taxi		"TAXIS"	
Electric vehicle		"ELECTRIC	
		VEHS"	
Car club		"CAR CLUB"	

<sup>1)</sup> If legend markings are required then they should be used in the smallest size variant permitted by the TSRGD.

Table 4 - Road markings for different types of bay