

DS.300 Overarching requirements and principles for traffic signs and road markings

Rev.	Status	Created by	Date	Approved by	Date
A	Final	D.Farnham/T.Walker	27.02.12	D.Waters	28.02.12
B	Final	D.Farnham/T.Walker	01.12.13	M.Hill	12.12.13
C	Final	G Lake	24.05.19	D Foden	21.06.19



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1 Introduction

1.1 Notes

- a. This standard explains general overarching requirements for traffic signs. It also explains key principles about their use. Traffic signs include both upright signs and road markings.
- b. See the SSDM webpages at www.southwark.gov.uk/ssdm about the design of streets and spaces.

1.2 Discussion

- a. Traffic signs may be either upright signs or road markings. Their use is governed mainly by the statutory requirements of the Traffic Signs Regulations and General Direction 2016 (TSRGD). However, this provides plenty of flexibility. For the most part, their introduction and arrangement is entirely at the discretion of the relevant Highway Authority for an area. They will generally only introduce them in order to provide warning of some safety concern or to help make a Traffic Management Order enforceable (e.g. a parking, access or turning restriction). The decisions is also likely to be guided by concerns to demonstrate that they are meeting Statutory duties related to things like the promoting road safety and keeping traffic moving. Even when a Highway Authority does decide that a traffic sign is necessary, Statutes provide substantial flexibility about most aspects of their design and location.
- b. Despite the above, there has been increasing concern over the past 15 years about the perceived over-use of signs by Highway designers. It has been suggested that introducing signs has almost become a default response to any safety concern and this has led to cluttered road environments - undermining quality of place and potentially serving to confuse road users. This concern has been most pronounced in urban areas. Most regulations and national guidance dealing with traffic signs was prepared

for roads with speed limits of 30mph (or greater) where safety concerns are more critical. However, within urban areas the use of 20mph speed restrictions has now become common place and it is has been suggested that requirements may be overly conservative for these circumstances.

- c. The above concerns have resulted in some recent significant changes to national guidance and statutes. Firstly, the Government has updated its general guidance on street design to advise that designers should assume a blank canvas and carefully justify every traffic sign within a street – leaving out any for which no clear safety grounds exist or where issues could be avoided by other design approaches. Secondly, Government has begun a major review of traffic signs policy, reiterating its advice that the use of traffic signs should be strictly minimised. In time this will result in full scale revision of the TSRGD and other Statutory instruments. However, as an interim step the Secretary of State for Transport has issued some minor amendments to the TSRGD and used special powers to permit Highway Authorities (by Special Authorisation or Direction) to vary on an individual basis from some TSRGD requirements. This has the effect of significantly further expanding flexibility in the use of many traffic signs and – potentially – allowing many existing signs to be removed. The government has strongly encouraged Highway Authority's to use these new powers to review and reduce the number of traffic signs in streets and spaces and to continue to consider if traffic signs are really required at all.

2 General principles for using traffic signs

2.1 Zero signage approach

- a. The Council acting as Highway Authority and Traffic Authority expects streets and spaces to be designed to avoid or minimise the need for upright signs and road markings (other than those related to

parking restrictions). This should be achieved through good design that creates self-explaining and self-enforcing street environments (see note).

NOTE: This approach is taken both to avoid the negative visual, road user behaviour and placemaking implications of traffic infrastructure as well as to minimise maintenance requirements (see section 3.1.5).

- b. In keeping with the above philosophy, designers are expected to be able to clearly justify the need the need for introducing or retaining each upright sign or road marking in their proposals. They must be able to demonstrate on request why this could not be avoided through alternative designs and the options they have considered in these respects. To encourage this, SSDM design standards make introducing most upright signs and road markings dependent upon agreeing departures. Further information can be found in the standards for specific types of signs. However, see section 3.1.2 about requirements for signs not covered by any further design standard.

2.2 Justifying departures on road safety grounds

- a. As explained in section 2.1, SSDM design standards generally require departures to be agreed if it is proposed to retain or introduce most types of upright sign or road marking. If a departure request is justified on road safety grounds (as may often be the case) and approving officers are satisfied both that
 - i. these grounds are valid
 - ii. no reasonable alternatives exist that could avoid the need for signage or which are less visually intrusive
 then departure is likely to be granted immediately. However, if approving officers have reasonable doubt about the validity of safety concerns then, in the absence of any supporting evidence from a Road Safety Audit, departure is likely to be declined. Thereafter, when contesting on road safety grounds any

declined departure request, this will be subject to the findings of a Road Safety Audit and subsequent review on how best any safety problems identified in this could be resolved. Normally that review will take place as part of a following Quality Audit.

3 Requirements

3.1 Review of Moving Traffic, Prohibited Route and Parking Sign proposals by the Parking Design Manager

- a. Notwithstanding the requirements elsewhere in this and other design standards, all proposals for the design and location of upright signs and road markings that are related to
 - i. moving traffic offences
 - ii. prohibited routes
 - iii. parking (waiting or loading) restrictions
 - iv. speed limits
 are subject to review by the Parking Design Manager. Notwithstanding the requirements elsewhere in this design standard, they have discretion to instruct via approving officers such changes as they may consider appropriate. These reviews may occur
 - v. during Design Workshops (in advance of the submission of design proposal information for Document Check).
 - vi. as part of Document Checks of submitted design proposals.
 - vii. during Quality Audits (though it will need to be confirmed in the Quality Audit Report).

3.2 Reviewing existing traffic signs

- a. For each project, all existing traffic signs and road markings within the Project Area defined in the project Quality Plan should be reviewed for consistency with SSDM design requirements and designed out, relocated or updated in accordance with these. To encourage this
 - i. retaining any existing sign if this is not otherwise permitted by design standards requires level 1 departure
 - ii. see section 3.1.5 about providing commuted sums for any retained existing signs.

3.3 Size of traffic signs

- a. Except where expressly directed otherwise within other design standards, all upright signs and road markings should be the minimum size variant permitted by Statutes. Using larger sizes requires level 1 departure. This applies to both new signs and existing signs.

3.4 Lighting of traffic signs

- a. Except where expressly directed otherwise by other design standards, no traffic sign should be lit if this is not required as the only option by Statute or Special Direction/Authorisation of the Secretary of State for Transport. This requirement applies to both new signs and existing signs.

3.5 Height of upright signs above footway surfaces

- a. See standard DS.003 about mounting heights for upright parking signs.
- b. For all upright signs other than those for parking, a common sense approach should be taken (see note 1). In the majority of instances, they ought to be located so that either their
 - i. base is $\geq 2.1\text{m}$
 - ii. top is $\leq 1.2\text{m}$
 above the footway surface (though see '0' and note 2). The former of these values may be reduced to 2.0m if this allows a sign to be located on a column or post that already accommodates other signs – but not if the sign is located in a cycle track of any kind in which case the minimum height of the base of a sign above ground level should be 2.3m in all circumstances (see note 3).

NOTE 1: The TSRGD does not stipulate any requirements about mounting heights for upright signs. Whilst this affords substantial discretion to designers, safety and accessibility considerations must be born in mind as signs that are alternatively too high or low may present a risk to street users. Similarly, signs must be sufficiently visible to street users so as to convey their intended

purpose. Were this not the case then (in the most extreme circumstances) it could result in suggestions of entrapment by the Highway Authority. On the other hand, signs can be visually obtrusive. Sensitivity is therefore required to minimise their negative impact on the street scene. In general, a common sense approach should prevail with the height of signs driven by the particular context of the location in which they are to be placed. In the right context there is no reason in principle why a sign should not be placed at an extremely low level such that it is not visual intrusive whilst still remaining adequately conspicuous.

NOTE 2: Given the possible risk to pedestrians were they to collide with the side of a sign, mounting them at heights where their base is between 1.4 and 2.0m above ground level should generally be avoided unless they can be mounted on or close to walls, fences or railings (see note to 'c'). However, this is not an absolute requirement as there may be situations where this could prove quite acceptable based on local context.

NOTE 3: This is because people are likely to be higher than normal when riding a pedal cycle – especially when standing up in the saddle.

- c. If any part of a sign is located at a height $< 2.0\text{m}$ above ground level then any edge of that sign face that protrudes from the object to which it is attached should either
 - i. have a wide rubber or plastic rim or tubular metal surround applied (e.g. BS EN 12899-1, Class E2)
 - ii. be enclosed by wide surrounds of another form (e.g. BS EN 12899-2, Class E3)

The only exception to this requirement is if a sign is located at the very rear of a footway against or upon private property or building lines (see note).

NOTE: Such signs should be positioned so that their face is in the same plane as that of the wall, fence or railings. They may be either attached directly to these else off-set by up to 175mm. If greater offsets are necessary then sign surrounds as per the above should be provided.

3.6 Terminal signs 0

NOTE: Terminal signs are upright signs that indicate the start or end of a restriction or prohibition that applies to an area. That could be a speed limit, a speed limit zone or a zonal restriction on waiting or loading. Terminal signs may also indicate prescribed routes (access restrictions for particular classes of vehicles) though in this instance they apply only to the location where they are used rather than to an area that is entered and exited.

3.6.1 Using signs to one or both sides of the carriageway

- a. Except where expressly directed otherwise by other design standards, if any of the terminal signs in Table 1 are required, then only a single such sign should be provided. This should be located on a single side of the carriageway to which it applies. Using a pair of such signs (with one located on each side of the carriageway) requires level 1 departure. An evidenced safety need to do so that cannot otherwise be avoided must be demonstrated. As per section 2.2 usually this will be via the findings of a Road Safety Audit Report (and subsequent consideration of how to address these in a following Quality Audit.
- b. Table 2 lists terminal signs that Directions 8 and 9 of the TSRGD continue to require be provided as a pair in most circumstances, with one placed on each side of the carriageway (see note 1). However, in certain circumstances it allows only a single sign to be provided on one side of the carriageway only (see note 2). Except where expressly directed otherwise by other design standards, if any of the circumstances in Directions 8 and 9 of the TSRGD apply that allow a single such sign to be located to a single side of a carriageway only, then those signs should be located to a single side only. Providing two signs as a pair (with one each side of the carriageway) requires level 1 departure. Designers must demonstrate an evidenced safety need that cannot otherwise be avoided. As

per section 2.2, usually this will be via the findings of a Road Safety Audit Report and subsequent consideration of how best to address these in a following Quality Audit.

NOTE 1: These terminal signs were not included in the special Direction discussed in Note 1 to Table 1.

NOTE 2: Broadly, those circumstances are

- (1) *if the restriction or prohibition applies to a single side of the road only*
- (2) *at junctions if it applies to a side road that traffic using a main road (to which it does not apply) can turn into from one direction only*
- (3) *the carriageway is less than 5m wide and the sign is located with its centre less than 2m from the edge of the carriageway. In addition, further circumstances apply for speed limit signs under Direction 9. These are*
- (4) *when the point at which a restriction begins is not at a junction with another road and*
- (5) *where the point at which the speed limit begins is at a junction but where the same speed limit applies to both roads. An example of this would be turning from a street that is within a 20mph zone onto a street that is not in the zone but to which a 20mph speed limit applies.*

Type of prohibition or restriction	TSRGD diagram no.	Meaning
Prescribed route	616	No entry for motor vehicles
	617	All motor vehicles prohibited except non-mechanically propelled vehicles pushed by pedestrians
	618	All vehicles prohibited from "Play Street" during the period indicated except for access
	618.1	All vehicles prohibited during the period indicated except for access
	618.2	Pedestrian zone (with various access prohibitions)
	618.3	
	618.3A	
	619	Motor vehicles prohibited
	619.1	Motor vehicles except solo motor cycles prohibited
	619.2	Solo motor cycles prohibited
	620	Except for access
	620.1	Except for loading by goods vehicles
	620.1A	Except for loading by goods vehicles
	622.4	Articulated vehicles prohibited
	622.5	Horse drawn vehicles prohibited
	622.6	Ridden or accompanied horses prohibited
	622.7	Towed caravans prohibited
	622.8	Vehicles carrying explosives prohibited
	622.9	No explosives plate
	625.1	Pedestrians prohibited
	626.2A	Vehicles exceeding weight prohibited from crossing bridge or structure
	627.1	Exemption from 626.2A for unladen vehicles
	629	Vehicles exceeding width indicated prohibited
	629A	As 629 with width in metric and imperial units
	629.1	Vehicles exceeding length indicated prohibited
	629.2	Vehicles exceeding height indicated prohibited
	629.2A	As 629.2 with width in metric and imperial units
	951	Riding of pedal cycle prohibited
	952	Buses prohibited
	953	Route for use by buses and pedal cycles only
	953.1	Route for use by tramcars only
	955	Route for use by pedal cycles only
956	'Shared use' cycle track	
957	'Adjacent use' cycle track	
Moving traffic	652	One-way traffic – see note 2
	960	Contra-flow bus lane – see note 2
	960.1	One-way street with mandatory contra-flow cycle lane– see note 2
	960.2	One-way street with advisory contra-flow cycle route– see note 2
	632	No overtaking
	642	No stopping on main carriageway
	646	No stopping during periods indicated (except for picking up or setting down)
Waiting or loading prohibition	663	Entrance to a controlled parking zone
	663.1	Entrance to a voucher parking zone
	663.2	Entrance to a restricted parking zone
	665	Entrance to a controlled parking zone applying to goods vehicles over maximum gross weight shown

NOTES

- 1) Direction 8 of the TSRGD normally requires the signs in this Table (other than those covered by note 2 below) to be provided as a pair (with one sign located to each side of the carriageway) in most circumstances. However, like many other Highway Authorities, Southwark Council received a special Direction from the Secretary of State for Transport that permits it to provide a single sign to one side of the carriageway only under most circumstances. This can be found at www.dft.gov.uk/traffic-auths/ as Case 2889.
- 2) Though these signs are not covered by Direction 8 of TSRGD (and are therefore not normally required to be placed on both sides of a carriageway in most instances) they should never the less only be placed on a single side of the carriageway except as explained in '3.6.1.a'.

Table 1 - Terminal signs (and certain other signs) that should be located on a single side of a carriageway only

Type of prohibition or restriction	TSRGD diagram no.	Meaning
Waiting or loading prohibition	663.3	Entrance to a road or area where parking is reserved for permit holders
	667	Vehicles may be parked partially on the verge or footway
	667.1	Vehicles may be parked partially on the verge or footway during the period indicated
	668	Vehicles may be parked wholly on the verge or footway
	668.1	Vehicles may be parked wholly on the verge or footway during the period indicated
Speed limit or zone	670	Maximum speed limit in miles per hour – see note
	672	Minimum speed limit in miles per hour – see note
	674	Entrance to a 20 mph speed limit zone – see note

Table 2 - Terminal signs that should be located on a single side of a carriageway only when Directions 8 and 9 of the TSRGD permit this

3.6.2 Placing terminal signs in relation to the start/end of restrictions/prohibitions

NOTE: The TSRGD makes only minor stipulations about the distance at which terminal signs should be placed in relation to the spatial limits of restrictions/prohibitions (as described in associated Traffic Management Orders and other legal documents). See Direction 8 of the TSRGD for details. Broadly, it is stated only that they are placed “at or as near as is practicable” to the start of the restriction/ prohibition - though some further provisions exist for speed limit terminal signs under Direction 9.

- a. There a wide range of things to consider when placing terminal signs in relation to the start/end of a restriction/prohibition (as well as in relation to each other if terminal signs are paired to either side of the carriageway as 3.6.1). It does not necessarily follow that signs must be always placed immediately at the start/end of a restriction/prohibition or (if they are paired) immediately opposite one another. Designers should use their discretion to locate and arrange signs in positions that minimise the number of terminal signs and additional posts required whilst maintaining enforceability. Consultation with Approving Officers is encouraged from an early stage. All such arrangements remain subject to review by the Parking Design Manager as section 3.1 who

may instruct modifications.

3.7 Sign backing boards

- a. No yellow backing boards or conspicuity panels should be used to any upright sign (or assembly of upright signs) – though see standard DS.114 about potential use of conspicuity panels within traffic bollards that contain signs.
- b. If upright signs and plates are
 - i. logically associated with one another, then they may be mounted within the same backing board - providing this does not have any areas of substantial redundant space within it (see note 1). The colour of front facing areas of the board should be grey. See section 3.8 about rear areas
 - ii. not logically associated with one another, then they may not be mounted within the same backing board (see note 2)

This applies equally to directional signs.

NOTE 1: An example of a series of associated signs is a diagram 663 ‘entry to a controlled parking zone sign and a diagram 654.2 ‘except buses’ plate.

NOTE 2: These requirements exist in order to reduce the wind loading created by signs. This is an important factor in determining whether signs can be mounted to lighting columns as these typically have limited structural capacity.

3.8 Rear faces of signs

- a. Except if signs are mounted back to back with each another, the rear face of
 - i. each sign
 - ii. any associated backing board should be finished in the same colour as the post or lighting column to which it is mounted.

3.9 Support posts and mounting brackets

- a. Sign posts and associated footings should be designed to BS EN 12899-2, appropriate to the upright signs that will be fixed to them and the likely wind loadings. See however standard DS.130 about surface finishes over footings. However, for sign posts (but not lighting columns)
 - i. all footings should adopt a buried root design. As an absolute minimum
 - at least a 270mm depth of the buried post shall be surrounded by a 150mm thickness (to all sides) of a concrete or hydraulically bound mixture with a compressive strength of C16/20 or greater (e.g. [A-ST4] wet lean concrete). That surround shall also extended for a minimum of 150mm below the post
 - a welded flange plate or rod that protrudes by ≥ 30 mm from the sides of the post should be included to its base. Other similar measures to securely anchor it within the footing may be permitted by level 1 departure
 - ii. flange covers (or similar) may not be provided above ground to the base of posts to conceal footings
- b. The top of sign posts should be flush with the top of the sign assembly.
- c. All posts should be topped with a steel or plastic cap to prevent water ingress. This should be finished in the same colour as the post.
- d. See also
 - i. standard DS.219 about introducing visibility bands on posts so that they

stand out to blind and partially sighted people.

3.10 Mounting signs associated with development works on private property (e.g. walls and railings)

- a. If improvements are required to new or existing Highways under sections 38 or 278 of the Highways Act 1980, any upright traffic signs necessary in association with those improvements which logically need to be located along a boundary of any building or other frontage owned or controlled by the proponent (or which are within the immediate vicinity of one of these) should be mounted on or within the boundaries of that land. See 'b' about related consent requirements. This requirement for mounting upright signs on private property may be waived on a sign by sign basis by level 1 departure. It must be demonstrated that the sign could not be seen or serve its intended purpose correctly if located on that private property.
- b. In order to permit signs to be located on or within the boundaries of private property, the freeholders of that property should
 - i. provide their formal written consent with perpetuity to mount traffic signs to that private property
 - ii. agree legal way-leaves to mount any associated street lighting apparatus to buildings, again with perpetuity
 - iii. if signs will be located within private property (rather than to their boundaries with the Highway) such that council operatives will be unable to access them whilst remaining on the Highway, further legal way leaves will be required to allow council operatives access to fulfil any maintenance purposes that may be agreed.
- c. If works to existing or proposed new Highways maintained at the public expense are to be delivered in advance of bounding developments, upright traffic signs may be located on posts or columns within the Highway on a temporary basis by level 1 departure. This is subject to advance agreement to relocate these on or within the boundaries of private property once these have been constructed.

- d. Wherever possible, the Highway Authority will look to agree suitable consents and wayleaves with private developers in order to provide flexibility to mount further upright traffic signs to or within the boundaries of their private land without needing further consents or agreements.

3.11 Lighting asset inventory signs

- a. All Highways lighting assets (but not other assets) may have a small plate, sticker or stencil located on them stating the asset code for identification and management purposes. This should face the carriageway so that it can be seen by operatives when using identification vehicles.

3.12 Using traffic signs not addressed in other design standards

- a. Use of any sign (including those for waiting, loading and stopping) not covered by SSDM standards is at the discretion of approving officers. A form of departure approval is required in all instances. The level of the departure approval required is at the discretion of approving officers.

3.13 Using other signs (that are not traffic signs)

- a. Except if a body has a statutory power that provides otherwise, no body other than
- i. the Traffic Authority (effectively the Highway Authority)
 - ii. the Traffic/Highway Authority's appointed contractors
 - iii. such other bodies, persons or contractors that the Traffic/Highway Authority may approve to do so
- may mount signs to Traffic/Highway Authority property or otherwise place signs within the Highway or on Roads. This includes temporary signs and stickers.
- b. In addition to 'a', only signs that are included in the TSRGD (or which have otherwise been permitted by the

Secretary of State for Transport by associated special Direction or Authorisation) may be either

- i. used with a Highway or Road
- ii. mounted to Highway/Traffic Authority property

Using advisory or information signs and stickers that do not serve a traffic purpose (see note) within a Highway or Road requires the agreement in writing of the approving officer. The requestor must demonstrate that

- iii. an issue exists that cannot be satisfactorily addressed by means other than advisory/information signage or stickers
- iv. the proposed advisory/information signs or stickers have a proven record of being a successful and enduring means of addressing that problem that issue under similar circumstances

In addition, measures to monitor the ongoing effectiveness of the signs or stickers must be proposed and agreed. In the event that either

- v. such reports cease
- vi. the signs are otherwise shown to be no longer effective

then they will be removed by the Highway Authority. Any existing such advisory or information signs or stickers that are encountered within a project area should be reviewed and removed unless they have been previously consented by the approving officer as above.

NOTE: Examples of signs and stickers covered by this requirement include

- (i) neighbourhood watch area signs;
- (ii) Police or security initiative signs;
- (iii) commercial or advertising signs;
- (iv) RAC or AA event traffic signs;
- (v) signs providing direction to new developments;
- (vi) general information signs; and
- (vii) stickers warning against dog fouling or littering.

3.14 Meeting duties related to road safety when removing traffic signs

- a. If it is proposed to remove any upright sign or road marking (other than parking signs) an independent Road Safety Audit

of some kind should always be undertaken to consider potential associated safety implications.

NOTE: Whilst SSDM design standards frequently require existing traffic signs to be removed unless a form of departure approval is obtained, it does not follow that signs can be removed without any further consideration by designers. It may be that the sign was introduced in the first place to address some hazard that still remains pertinent. As a minimum, a Road Safety Audit or spot assessment should be carried out.

3.15 Commuted sums

- a. In the majority of instances where new upright signs or road markings are introduced (or where existing traffic signs are retained where this is not otherwise permitted by design standards) the proponents are required to pay commuted sums or other contribution towards future maintenance and operational costs.

NOTE: This requirement reflects the preference for designing streets to be self-enforcing and self-explaining so that signs are not required. Whilst introduction of signs may sometimes be preferred by designers on the basis of being cheaper for clients than the alternatives, signs require maintenance and this introduces a financial burden on the council. In general, the only instances where commuted sums will not be required for maintenance of signs and road markings are where

- (1) the Highway Authority have themselves directed the inclusion of the signs or is satisfied that no reasonable alternatives exist*
- (2) the signs related to permit holder parking provision.*