

DS.304 Signing of one-way streets (including those with cycle contra-flows)

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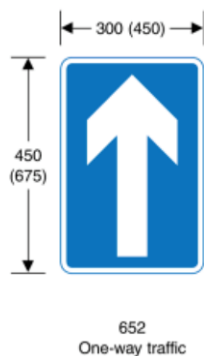
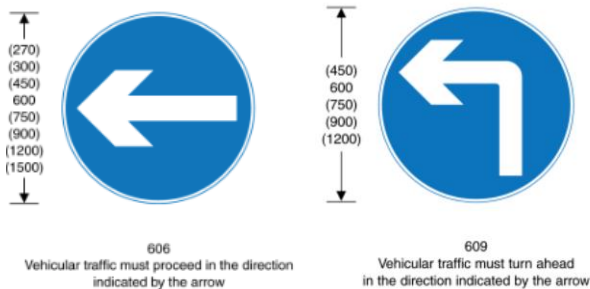
1 Introduction

1.1 Notes

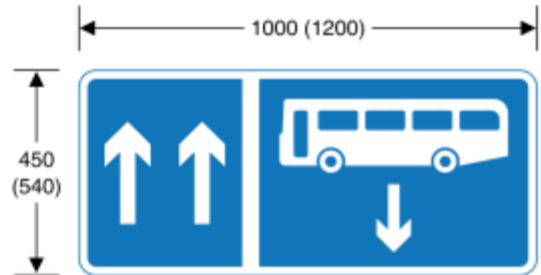
- a. This standard explains general requirements about signing of streets with one-way traffic prohibitions – including those with contra-flow lanes or routes for pedal cyclists. However, designers should note that it is not the intention of this standard to describe all eventualities, just those likely to most frequently occur.
- b. See standard DS.300 for general requirements on the use of traffic signs and road markings, including sign sizes and lighting requirements.
- c. See the SSDM webpages at www.southwark.gov.uk/ssdm about the design of streets and spaces.

1.2 Discussion

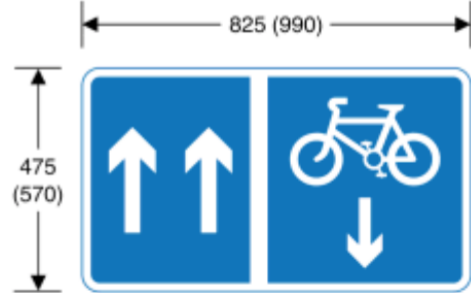
- a. Blue ‘one-way’ upright signs to TSRGD diagrams 606, 609 and 652 are used to indicate that traffic should either
 - i. proceed in a single direction only along a street; or
 - ii. turn in a single direction only at a junction.



- b. Where contra-flow lanes or routes exist for buses, pedal cycles or other users along the same street, then a variety of other blue ‘one-way with contra-flow’ upright signs may be used instead of those discussed in ‘a’. Examples include the signs to diagrams 960, 960.1 or 960.2.



960
Contra-flow bus lane
Note: Any vehicle may enter the bus lane to stop, load or unload where this is not prohibited



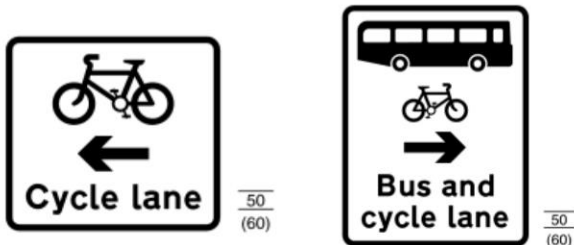
960.1
Contra-flow cycle lane



962
Bus lane on road at junction ahead

These face those users travelling with-flow (rather than those travelling contra-flow). In the past, use of some of these signs to permit contra-flows required special authorisation from the Secretary of State for Transport. This was a time consuming process with no guarantee that consent would be granted. However, recent changes to requirements for the use of signs mean this is no longer the case. Consequently, it is now much easier to introduce contra-flows than in the past.

- c. Given the possibility for confusion of road users, other supporting advisory and warning signs may sometimes be introduced along or on entry to one-way streets. Examples include diagram 962.1, 962.2 and 963.2 'contra-flow on road at junction ahead' upright sign plates for vehicle users and pedestrians.



962.1
Cycle lane on road at junction ahead
or cycle track crossing road

962.2
Contra-flow bus lane which pedal cycles may
also use on road at junction ahead

- d. Similar to most other traffic signs in the TSRGD, in the majority of instances no statutory requirement exists to provide one-way signage. Designers will usually choose to introduce signs to support some statutory duty (such as the promotion of road safety or the expeditious movement of traffic). In the case of one-way streets the need for signs is quite clear as both
- i. without them road users could not be expected to know of the existence of the Traffic Management Order that formerly implements the one-way prohibition
 - ii. the consequences of road users travelling the wrong way up the carriageway of a one-way street unknowingly could be significant.

2 Use Requirements

- a. See the Southwark Network Management Policy for details of the council's approach to the introduction and retention of one-way streets.
- b. See standard DS.102 about the introduction of contra-flow cycle lanes and advisory routes to one-way streets and the type of lane or route that should be provided where these are permitted (e.g. mandatory lane, marked advisory route, or unmarked advisory route).

NOTE: Broadly, in most instances on 20mph streets contra-flow facilities should be unmarked advisory routes - though with brief sections of marked advisory route at their start and end and (potentially) other points of conflict between these. Mandatory contra-flow cycle lanes will not normally be permitted on 20mph streets. On 30mph streets the type of contra-flow facility will be determined on a case-specific basis. However for a variety of reasons, introduction of mandatory lanes is unlikely to be practical the majority of the time.

3 Design requirements

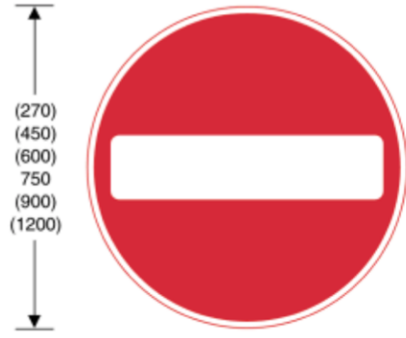
NOTE: As discussed in section 1.1 it is not the intention of this design standard to set out detailed requirements for every eventuality - only those for the circumstances that are likely to occur most frequently. As such the design requirements below primarily address simple one-way with-flow traffic streets with or without a contra-flow advisory route for pedal cyclists. That advisory route may be marked or unmarked. Where one-way streets include contra-flow bus lanes or dual carriageways then signage requirements will need to be agreed on a case specific basis with approving officers. This may also be required at other times where circumstances fall outside of the instances described below.

3.1 Road Safety review of signage proposals

- a. Notwithstanding provisions elsewhere in this standard about the potential use of particular signs or road markings, where one-way streets exist then the acceptability of traffic signing proposals
 - i. at all points of entry and exit to the street; and
 - ii. at all junctions that they pass through should be raised as a Point Of Enquiry within a Road Safety Audit (RSA). Subject to the findings in the RSA Report variation of the requirements in this standard may be permitted by agreement to a level 1 departure (see note).

NOTE: Examples of variations may include the use of any of the following:

- Diagram 652, 960, 960.1 or 960.2 'one-way/one-way with contra-flow' signs to both side of the street at points of entry.
- Diagram 616 'no entry for vehicles' upright terminal signs to both sides of the carriageway.



616
No entry for vehicular traffic

- Diagram 810 'one-way' sign plates and diagram 963-963.2 'bus/cycle lane – look right' signs plates for pedestrians.



810
One-way traffic in direction indicated
(Sign for pedestrians)

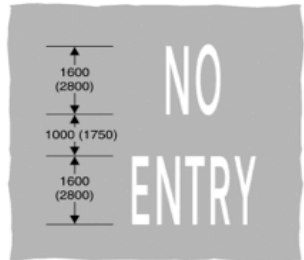
963
Bus lane with traffic proceeding from right
(Sign for pedestrians)



963.1
Cycle lane with traffic proceeding from right
(Sign for pedestrians)

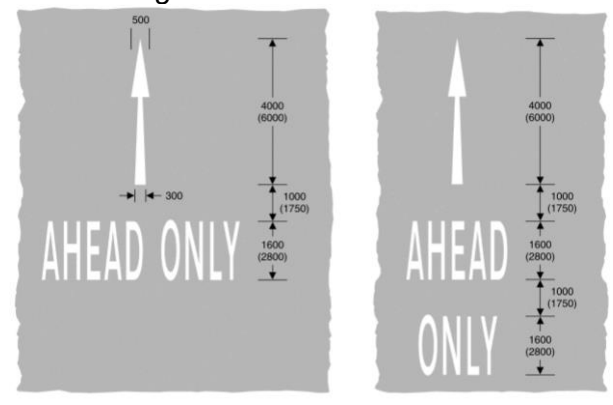
963.2
Contra-flow bus lane which pedal cycles may also use with traffic proceeding from right
(Sign for pedestrians)

- Diagram 1046 'no entry' text road markings.



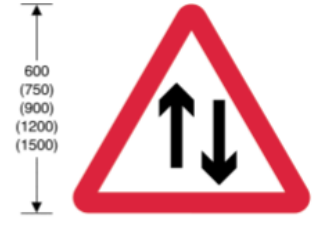
1046
No entry for vehicular traffic
(Alternative types)

- Diagram 1036.2 'vehicular traffic must only proceed ahead' text and arrow road markings.



1036.2
Vehicular traffic must only proceed ahead
(Alternative types)

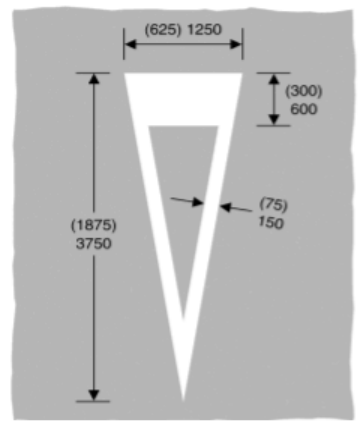
- Diagram 521/522 'two-way traffic' upright warning signs.



521
Two-way traffic

522
Two-way traffic on route crossing ahead

- Diagram 1023 'give-way triangle' markings



1023
Approach to a road junction, level crossing or road narrowing at or near which is placed the marking shown in diagram 1003 or 1003.3

- Splitter islands to create bypass lanes for entering or exiting contra-flow cycle routes as permitted by the departure requirements of standard DS.113.

On 30mph streets, where contra-flow facilities pass side road junctions - limited discrete use of coloured surface treatments Use of coloured surface treatments will require a separate level 2 departure.

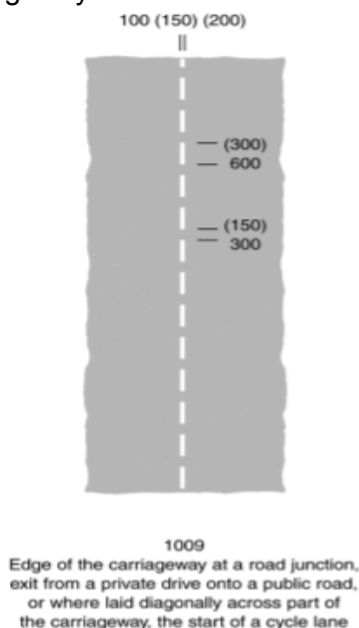
3.2 Start of one-way street (entry for with-flow traffic / exit for any cycle contra-flow)

3.2.1 Entry for with-flow traffic

- a. On entry to a section of one-way street (or a one-way street with a contra-flow cycle lane or advisory route for cyclists) a blue diagram 652, 960, 960.1 or 960.2 'one-way/one-way with contra-flow' upright sign (as appropriate) should be provided. See standard DS.300 for further requirements about locating this and the number of such signs that should be provided (see note).

NOTE: Standard DS.300 typically requires only a single such sign to be provided (and on only a single side of the carriageway) unless evidenced road safety grounds can be demonstrated.

- b. Where the one-way street is a side road (minor road) and the restriction begins (and is entered into) from a simple major/minor priority 'T' junction with another street (the major road) then diagram 1009 'edge of carriageway' road markings should be provided across the entry to the one-way street along the edge of the carriageway of the other street (see note 1). See section 3.1 about the potential use of directional arrow and text legend markings on the one-way carriageway beyond the 'edge of carriageway' line.



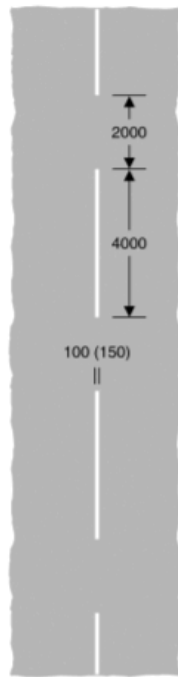
- c. See section 3.4 about instances when one-way streets that run along major roads are entered into from minor roads via simple major/minor priority 'T' junction.

3.2.2 Exit for contra-flow cycle lanes or advisory routes (where present)

- a. Where a contra-flow cycle lane or advisory route exits a one-way street at the point of entry for with-flow traffic, then a give-way line as standard DS.302 (and associated other signs and road markings where permitted) should be provided. This should be directly aligned with any diagram 1009 'edge of carriageway markings' that may be provided as per '3.2.1.b'. In addition
 - i. where the exiting facility is a mandatory contra-flow cycle lane (see 2.6) - the 150mm wide diagram 1049 'edge of lane' marking should be extended up to the give-way line (see note 1). See section 3.5.2 about the lane width.



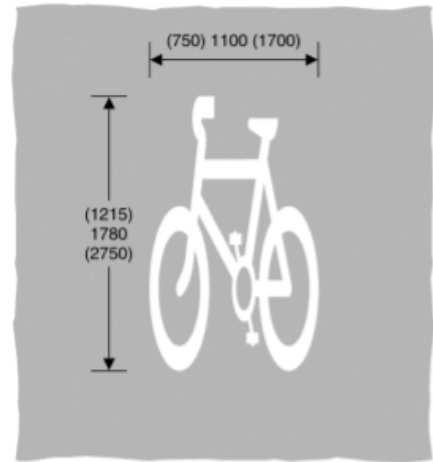
- ii. where the exiting contra-flow facility is an advisory route for cyclists - a length of 150mm wide diagram 1004 'warning line' markings should precede the give-way line to demarcate its limits. See section 3.5.2 about the route width. This is irrespective of whether the majority of the advisory route before the approach to the exit is marked or unmarked.



1004
Vehicular traffic on roads with a speed limit of 40mph or less should not cross or straddle the line unless it is safe to do so, and when the line is used in conjunction with the sign in diagram 967 motor vehicles should not enter a cycle lane unless that lane is clear of pedal cycles

- iii. whether the exiting contra-flow facility is a mandatory lane or an advisory route, 1 or 2 diagram 1057 'cycle symbol' road markings should be provided within the marked lane or route on the immediate approach to the give-way line (e.g. within 10-15m of it). Where an advisory route is unmarked immediately preceding the approach to the junction then at least one of the cycle symbols should be positioned not more than 1.5m after the start of the marked

section as 'ii' and should be followed within 0.75-1.5m by a diagram 1059 'direction in which pedal cyclists should travel' arrow marking (see note 1).



1057
Cycle lane, track or route

See also standard DS.113 about the potential use of splitter islands to physically separate exiting contra-flow lanes or advisory routes from entering with-flow lanes (see note 2). Potential use of coloured surface treatments within the exiting facility requires a level 2 departure.

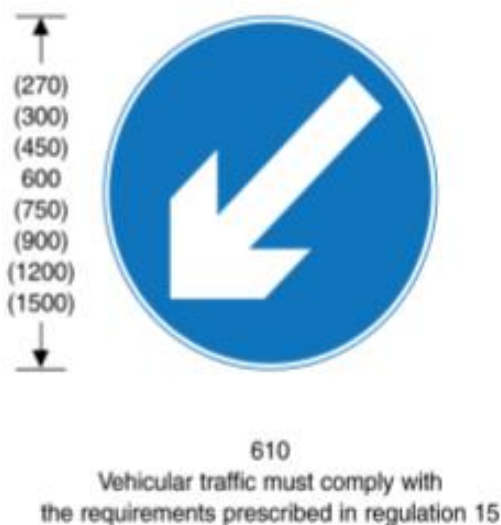
NOTE 1: This is important to ensure that cyclists understand which side of the road they should be exiting on.

NOTE 2: Broadly, splitter islands should not normally be used and should be avoided unless a clear safety need that cannot otherwise be designed out is apparent (though see also section 3.1). Where splitter islands are permitted then signage requirements will be agreed with approving officers on a case specific basis. In most instances it will be necessary to introduce further upright signage to clarify access prohibitions. Normally a diagram 955 'route for pedal cycles only' upright sign will be required at the approach end (for contra-flow cyclists) to the island to confirm that the bypass carriageway cannot be used by other road



955
Route for use by pedal cycles only

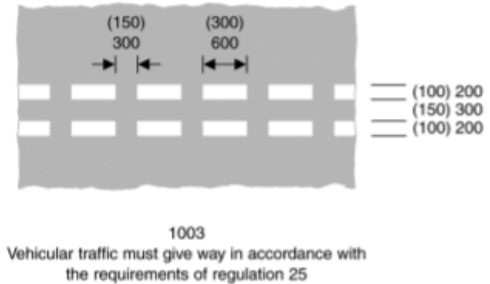
users. Were this not provided then enforcement against any other road users using the bypass facility would prove difficult. Notwithstanding this, it may be permitted to omit it in some circumstances. As the splitter island will serve to define the limits of the facility, there will be no need to provide the various mandatory/ advisory lane markings in 'i.-ii.' through it. However, the various other road markings discussed should be provided as usual. It will not generally be necessary to locate a further diagram 955 'route for use pedal cycles only' upright sign at the exit end of the island since the give-way markings provided as 'iii.' and the blue diagram 960.1/960.2 'one-way with contra-flow' upright sign will enforce against entry into it at that end by other road users. Normally the blue diagram 960.1/960.2 'one-way with contra-flow cycle lane/route' upright sign should be used to the left side of the entry carriageway for with-flow traffic only as per the requirements of standard DS.300, and should not be paired with a further such sign on the island. However, road safety concerns may sometimes necessitate this by departure (see section 3.1). Placing that second sign on the opposing footway (rather than on the island) is unlikely to be appropriate. Finally, in some instances a diagram 610 'keep left' sign may be required on the island to direct traffic entering from the junction into the with-flow traffic lane.



3.3 End of one-way street (exit for with-flow traffic / entry for any cycle contra-flow)

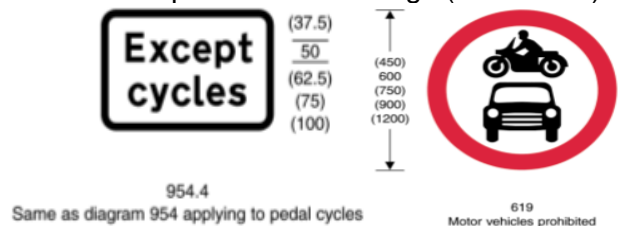
3.3.1 Exit for with-flow traffic

- a. At points of exit from one-way streets, a diagram 1003 'give-way line' marking (and other associated upright signs and road markings) should be provided as standard DS.302. This should extend across the junction mouth (see note).



NOTE: Where a contra-flow facility enters at the same point then that give-way line will be split with a diagram 1009 'start of cycle lane' line provided in its place to the side where the cycle facility is as section 3.3.2.

- b. Where the prohibition on access at the exit end of a one-way street is for all vehicles then a diagram 616 'no entry for vehicles' upright terminal sign should be provided at the junction. See standard DS.300 for further requirements about locating this and the number of such signs that should be provided (see note 1). Where the prohibition on access is for all vehicles *except* pedal cycles then a diagram 616 'no entry for vehicles' upright terminal sign should again be provided as per the above but a further diagram 954.4 'except cycles' plate should be mounted immediately beneath each instance on the same post or column. Where existing prohibitions on access using diagram 619 'no entry for motor vehicles' upright terminal signs are encountered within a project area then these should be replaced with the diagram 616/954.4 combination and associated other required road markings (see note 2).



NOTE 1: Standard DS.300 typically requires only a single such sign to be provided (and to a single side of the carriageway only) unless evidenced road safety grounds can be demonstrated. However, see also section 3.1.

NOTE 2: Diagram 619 'no entry for motor vehicles' terminal signs indicate that no vehicles except pedal cycles may pass. These were once used quite frequently as it was not legally possible until recently to use diagram 954.4 'except cycles' plates to exempt pedal cyclists from diagram 616 'no entry for vehicles' upright terminal signs. However the, diagram 619 signs are less well understood by road users. Now that the combined use of diagram 619 signs and diagram 954.4 plates is legal, this is the preferred approach to signing.

- c. See '3.5.1.b' about the potential use of diagram 1046 'no entry' legend markings and other similar markings to provide supplementary advisory warning to general traffic not to enter a one-way street at its exit.

3.3.2 Entry for contra-flow cycle lanes or advisory routes (where present)

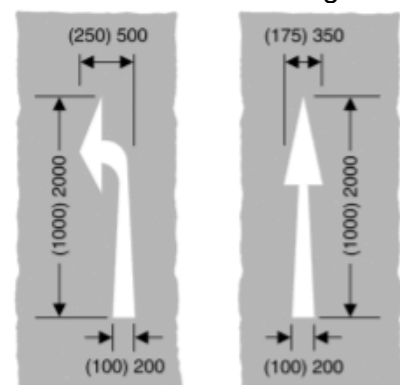
- a. Where a contra-flow cycle lane or advisory route enters a one-way street at an exit junction for with-flow traffic then a brief length of one of the following road markings should be provided (with associated upright signs and other road markings, as described) to define that contra-flow lane or advisory route on the appropriate side of the road.

- i. Where it is a mandatory cycle lane
 - A diagram 1049 'edge of lane' marking.
 - See '1f' about the potential use of blue diagram 967 'route recommended for use by pedal cycles' upright sign plates.



967
Route recommended for pedal cycles on the main carriageway of a road

- ii. Where it is an advisory route
 - A length of diagram 1004 'warning line' markings. This is irrespective of whether the majority of the advisory route thereafter is marked or unmarked. Where it is unmarked then the line should extend for 2-3 dashes only (though greater lengths may be permitted by agreement to a level 1 departure).
 - See '3.5.2.f' about the potential use of blue diagram 967 'route recommended for use by pedal cycles' upright sign plates.
- See also section '3.5.2.f' about the required width of that entering contra-flow lane or advisory route: In addition, irrespective of whether the entering contra-flow facility is a mandatory lane as 'i' or an advisory route as 'ii.'
- iii. it should commence with a transverse diagram 1009 'start of cycle lane' line running perpendicular across it to its full width (see note 1). This should be aligned to any give-way line that may be present for vehicles exiting from the neighbouring with-flow traffic lane.
 - iv. a diagram 1057 'cycle symbol' road marking should be located in the centre of the lane or advisory route within 2m of the diagram 1009 'start of cycle lane' transverse marking (as 'iii.'). This should be followed within 0.75-1.25m by a diagram 1059 'direction in which pedal cycles should travel arrow' marking.



1059
Directions in which pedal cycles should travel on a cycle lane, track or route

- v. in order to remind with-flow traffic on the one-way street of the possibility of encountering entering contra-flow cyclists, a blue diagram 960.1 or 960.2 'one-way with contra-flow' upright sign (as appropriate) should be provided on the one-way street 15-25m in advance of the junction. This should face the with-flow traffic as usual. As per standard DS.300 it should normally be provided to a single side of the carriageway only.

Finally, see also

- vi. standard DS.113 about the potential use of splitter islands to create physically segregated bypass lanes for the entering cycle lane or route (and see also note 2)
- vii. section '3.5.2.h.' about the potential use of coloured surface treatments within the entering facility.

NOTE 1: Where a contra-flow cycle lane or advisory route starts mid-link away from a junction, then the diagram 1009 'start of cycle lane markings' as '3.3.2.a.iii.' should be tapered at 1:1-1:4 rather than being perpendicular to the carriageway edge.

NOTE 2: Broadly, these should not generally be used and should be avoided unless clear safety grounds can be evidenced. Where they are permitted then signage requirements will be agreed on a case specific basis with approving officers. In most instances it will be necessary to introduce further upright signage to clarify access prohibitions. Normally a diagram 955 'route for use by pedal cycles only' upright sign will be required on the island to confirm that the bypass carriageway cannot be used by other road users. As the exit lane for with-flow traffic will then be effectively a separate carriageway the upright signs as '3.2.1.b' prohibiting access to this for other vehicles will be required to both sides of it (that is both on the island and to the footway on the opposing side of the street to that which the cycle facility runs along). Where diagram 616 'no entry for vehicles' signs are used then diagram 954.4 'except cycles' upright plates will not be needed beneath these as the bypass facility for cyclists is within a separate carriageway to which the

'no-entry for vehicles' prohibition does not apply. As the splitter island will serve to define the limits of the facility, there will be no need to provide the various linear road markings in '3.3.2.a.i.-ii.'. However, all other road markings to the start of the facility should be provided as usual, including the diagram 1009 'start of cycle lane' line marking and diagram 1057 'cycle symbol' marking.

- b. Where a contra-flow cycle lane or advisory route enters a one-way street at the exit junction for with-flow traffic, then a *minimum* distance of 17m should be provided after that junction before the cyclists travelling in contra-flow are required to navigate around any protrusion at the edge of carriageway (see note). In addition:

- i. Where the contra-flow is to be an unmarked advisory route for the majority of its length

the initial length of marked advisory route that is required as '3.3.2.a.ii.' should not be inclined to guide cyclists out around the protrusion as this tends to result in a confusing road arrangement for approaching with-flow motorists (though this is less likely to be the case in wider streets). In order to guard against this, inclining the markings in this way will require agreement to a level 1 departure. Instead:

- The initial marked section that is required on entry by '3.3.2.a.ii.' should be:
 - Kept parallel to the edge of carriageway kerb line.
 - Discontinued after its required minimum length.
- An unmarked gap of *minimum* length 7m should be provided between the end of the initial marked section (as above) and the start of the protrusion. No waiting at any time restrictions should be provided within this. This will provide space for cyclists to negotiate out before the obstruction.
- As per '3.5.2.e.' a single diagram 1057 'cycle symbol' markings should be positioned beside the start of the protrusion.

- ii. Where the contra-flow is to be an marked advisory route or mandatory lane for the majority of its length further lane arrangement and marking requirements on the approach to the first protrusion near the entry junction for contra-flow cyclists will be determined on a case specific basis with approving officers. This includes whether the lane may be inclined around the protrusion and to what taper gradient.

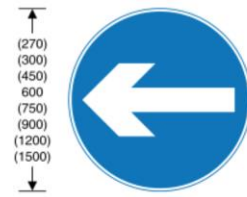
NOTE: This is important to ensure that cyclists are not immediately squeezed upon entry to the facility and have appropriate time to reposition themselves to safely navigate around protrusions. Protrusions may include build outs to the footway or areas of kerb-side parking that are not fully inset into the footway. Where contra-flow cycle lanes or routes are being introduced on existing one-way streets, it may be necessary to relocate parking away from junctions at points of entry in order to meet this requirement.

3.4 At intermediary junctions

3.4.1 Signage for with-flow traffic

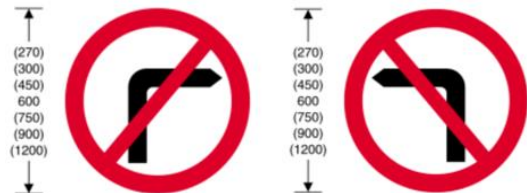
- a. At simple major/minor priority T junctions (see note) where vehicles on a two-way street (the minor road) turn onto a one-way street (the major road) then:
 - i. Where that one-way street does not accommodate a contra-flow cycle lane or advisory route
 - a diagram 1003 'give-way line' marking (and other associated upright signs and road markings) should be provided as standard DS.302 across the junction mouth.
 - within the junction space, a single diagram 606 'proceed left/right' upright sign should be placed on the major road on the opposing side of the carriageway to the intersecting minor road. It should be orientated to face road users approaching from the one-way minor road. Supplementary

diagram 607 'one way traffic plates' should not be used with it.



606
Vehicular traffic must proceed in the direction indicated by the arrow

- on the minor road approach to the junction, a single diagram 612/613 'no left/right turn' upright sign should be placed within 5m of the junction. Normally this will be to the nearside footway only (though see DS.300 about potential alternative location on the other footway). It should face users approaching the junction from the minor road. No defined waiting or loading bay or vehicle crossing should be located between this sign and the major road.



612
No right turn for vehicular traffic

613
No left turn for vehicular traffic

- ii. Where that one-way street accommodates a contra-flow cycle lane or advisory route
 - see section 3.4.2.

NOTE: This will not apply to T junctions with major roads that are dual carriageways or instances when the junction is signalised.

3.4.2 Signage of contra-flow cycle lanes or advisory routes passing through simple major/minor priority 'T' junctions

NOTE: The requirements in this sub-section do not apply to T junctions with major roads that are dual carriageways or instances when the junction is signalised.

Unmarked contra-flow advisory routes

- a. Where an unmarked contra-flow advisory routes pass through a simple major/minor priority T junctions on the major road, then

- i. the intensity of use of diagram 1057 'cycle symbol' markings along the contra-flow route should be locally increased, with these sited at approximately 3-5m metres spacing across the junction mouth. They should be centred at an off-set of not less than 1.2m from the carriageway edge in order to discourage gutter cycling and improve visibility of cyclists for users about to emerge from the minor road. One such marking should always follow immediately after the junction (in the contra-flow direction) such that is clear to cyclists turning onto the street that they may proceed that way.
- ii. advisory delineation of the contra-flow advisory route across the junction mouth using 150mm wide diagram 1004 'warning lines' may be acceptable but will need agreement to a level 1 departure. An evidenced safety requirement that could not otherwise be avoided or addressed will need to be demonstrated. Generally this will be on the basis of a Road Safety Audit. See also section 3.1.
- iii. unless a level 1 departure is agreed, upright signs (but not road markings – which should be as per the above) should be provided as per figure 17-4 in the 'Traffic Signs Manual – Chapter 3' (Department for Transport, 2008). In addition
 - the diagram 613, 954.4 and 962.1 signs and plates that are required on the minor road approach to the junction as figure 17-4 should be located
 - on the same post or column
 - within 5m of the junction. No defined waiting or loading bay nor vehicle crossing should be located between it and the major road.

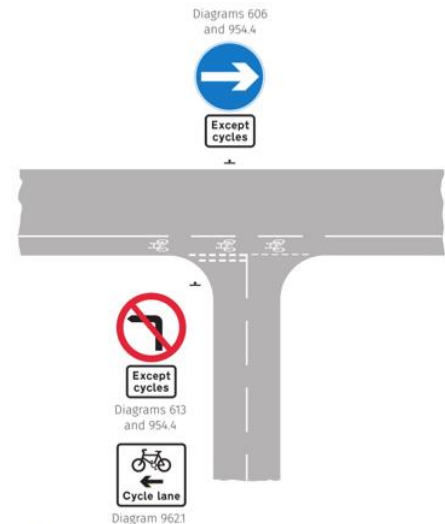


Figure 17-4 Example of the use of the sign to diagram 962.1 to indicate a mandatory contra-flow cycle lane

- As a supplement to the other upright signs that are required as figure 17-4, a blue diagram 960.2 'one-way with advisory contra-flow route' sign or signs (see note 2) should be provided on the major road directly after the junction in the direction of flow of with-flow traffic. These should be sighted and arranged as per the requirements of standard DS.300 (see note 1).
- iv. see also
 - '3.5.2.f.' about the potential use of blue diagram 967 'route recommended for use by pedal cycles' upright sign plates
 - '3.5.2.h.' about the potential use of coloured surface treatments to draw attention to the crossing advisory route.

NOTE 1: Standard DS.300 normally requires such signs to be provided to a single side of the carriageway only (rather than as a pair to both sides).

Marked contra-flow advisory routes

- b. Where marked contra-flow advisory routes are permitted and pass through simple major/minor priority T junctions on the major road, then
 - i. the 150mm wide diagram 1004 'warning lines' that delineate the route should be continued across the junction.

- ii. the intensity of use of diagram 1057 'cycle symbol' markings within the marked advisory route should be locally increased, with these sited at approximately 3-5m metres spacing across the junction mouth. They should be centred at an off-set of not less than 1.2m from the carriageway edge in order to discourage gutter cycling and improve visibility of cyclists for users about to emerge from the minor road. One such marking should always follow immediately after the junction (in the contra-flow direction) such that is clear to cyclists turning onto the street that they may proceed that way.

- iii. unless a level 1 departure is agreed, upright signs (but not road markings – which should be as per the above) should be provided as per figure 17-4 in the 'Traffic Signs Manual – Chapter 3' (Department for Transport, 2008). In addition

- the diagram 613, 954.4 and 962.1 signs and plates that are required on the minor road approach to the junction as figure 17-4 should be located
 - on the same post or column
 - within 5m of the junction. No defined waiting or loading bay nor vehicle crossing should be located between it and the major road.
- as a supplement to the other upright signs that are required as figure 17-4, a blue diagram 960.2 'one-way with advisory contra-flow route' sign or signs (see note 2) should be provided on the major road directly after the junction in the direction of flow of with-flow traffic. These should be sighted and arranged as per the requirements of standard DS.300 (see note).

- iv. see also

- '3.5.2.f' about the potential use of blue diagram 967 'route recommended for use by pedal cycles' upright sign plates
- '3.5.2.f' about the potential use of

coloured surface treatments to draw attention to the crossing advisory route.

NOTE: Standard DS.300 normally requires such signs to be provided to a single side of the carriageway only (rather than as a pair to both sides).

Mandatory contra-flow lanes

- c. Where mandatory contra-flow lanes are permitted and must pass through simple major/minor priority 'T' junctions along the major road then use of associated upright signs and road markings will be agreed on a case specific basis with approving officers. It will invariably require a local break in the mandatory contra-flow lane for the duration of the junction (and resigning of this after), since motorists will not otherwise legally be able to cross this when turning into or out of the minor road.

3.5 Signage between junctions (and miscellaneous general signage requirements)

3.5.1 Signage for with-flow traffic (including with-flow cyclists)

Repeater instances of blue one-way signs

- a. Repeater instances of blue diagram 652, 960, 960.1 or 960.2 'one-way/one-way with contra-flow' upright signs between junctions should be provided as follows.

i. Frequency/spacing

- Instances should be placed at the following frequency:
 - 20mph streets - 75-125m
 - 30mph street – 50-100m

Increased use will require agreement to a level 1 departure and is only likely to be locally permitted to brief lengths (rather than to the entire contra-flow street). An evidenced safety concern that could not otherwise be avoided else a statutory requirement will need to be demonstrated. See also 'iii.' and section 3.1.

ii. Pairing

Signs should be located as per standard DS.300. Normally this will mean providing a single sign to one side of the carriageway only (rather than pairing signs to either side of the

- carriageway at the same time) – though this will not always necessarily be to the near-side.
- iii. Coordination of instances with other road features (including changes in the contra-flow facility)
- Where a change in the type of contra-flow cycle facility occurs (e.g. from a mandatory lane to an advisory route) then - within the range stated as ‘i.’ – an instance of the appropriate blue upright sign associated with that type (as diagram 960.1 or 960.2) should be provided within 15m after the start of that new section (as approached by motorists travelling with-flow). This includes instances where mandatory lanes are briefly broken when passing the following kerb-side features to allow other vehicles access to these (the section between being marked as an advisory cycle route):
 - Kerb side parking - including inset parking bays (though see note)
 - Vehicle crossings.
 However, designers should note that there is no need to provide such signage where an advisory contra-flow cycle route changes from a marked section to an unmarked section (as both use the same blue diagram 960.2 upright sign).
 - Within the frequency range stated as ‘i.’, efforts should be made to coordinate individual instances with the following other features (where they are present) in order to remind users of these features of the existing of one-way arrangements:
 - Heavily used vehicle crossings – particularly those to commercial premises that may be visited by drivers or riders who are unfamiliar with traffic arrangements in the area.
 - London Cycle Hire Scheme docking stations.
- iv. Coordination with other posts and columns
Repeater signs between junctions

should only be located on lighting columns. Location on other posts will require agreement to a level 1 departure. This is most likely to be permitted when either

- the sign can be coordinated with various other unavoidable signs that could not all feasibly be accommodated on a lighting column
- there is no lighting column in the near vicinity that could be used (having considered adjustment of the frequency of sign spacing).

NOTE: This will only apply when the mandatory cycle lane and parking bays share the same hours of operation. Should the parking bays only be operational outside of the hours of operation of the mandatory lane then there will be no need to break the lane to allow access to them.

Other road markings

- b. Use of the following road markings in association with one-way streets is to be avoided and - unless permitted by other standards - will require agreement to a level 1 departure:
- i. Diagram 521/522 ‘two-way traffic resuming’ upright warning signs.
 - ii. Diagram 1036.1 ‘turn left arrow/legend markings.
 - iii. Diagram 1036.2 ‘vehicular traffic must only proceed ahead’ arrow/legend markings.
 - iv. Diagram 1036.3 ‘turn right arrow/legend markings.
 - v. Diagram 1037.1 ‘turn right’ arrow/legend markings.
 - vi. Diagram 1038 ‘directional arrow for with-flow traffic’ markings.
 - vii. Diagram 1046 ‘no entry’ legend markings.

In order to obtain departures an evidenced safety concern that could not otherwise be avoided will need to be demonstrated (see note to ‘3.5.1.’ and see also section 3.1).

3.5.2 Signage for contra-flow cycle lanes or advisory routes

Widths of contra-flow lanes and advisory routes

a. See standard DS.102.

NOTE: In relation to unmarked advisory contra-flow routes, this includes details of the permissible overall minimum carriageway width.

Times of operation of contra-flow lanes and advisory routes and associated waiting and loading prohibitions

b. See standard DS.102.

Arrangement of mandatory contra-flow lanes between junctions

c. Where lengths of mandatory contra-flow cycle lane are provided between junctions then the arrangement of these in respect to the lane delineation markings will be determined on a case specific basis (including any taper gradients when the lane must negotiate protrusions at the edge of carriageway). Invariably the continuous diagram 1049 lane edge marking will need to be broken from time to time to allow other road users to cross it for the purposes of accessing kerb edge parking or vehicle crossings to private hard standings. For the purposes of continuity the lane will normally be marked through such breaks using 150mm wide diagram 1004 'warning line' markings (in the same manner as used for advisory routes). See also

- i. '3.5.1.a' about the need for associated signage facing with-flow traffic at such breaks
- ii. '3.5.2.d' about the provision and spacing of diagram 1057 'cycle symbol' markings through that break.

Use of repeater instances of 'cycle symbol' markings between junctions and/or start/end points of contra-flow lanes or advisory routes

d. Between junctions and the start/end points of contra-flow lanes or advisory routes, repeater instances of diagram 1057 'cycle symbol' markings should be used as follows:

i. Frequency/spacing

Instances of symbols should be located at the following spacings depending upon the type of contra-flow cycle facility provided to that length of street.

- 15-25m for sections of unmarked contra-flow advisory route
- 25-40m for sections of marked contra-flow advisory route
- 30-40m for sections of mandatory contra-flow lane
- In all of the above instances the frequency should be increased to 8-12m when passing areas of parking that are located along the edge of carriageway used by contra-flow cyclists.

Approving officers have discretion to permit more frequent spacing – but only to local areas at points of conflict (and not the entire route).

ii. Off-set from carriageway edge (or other bounding feature)

Irrespective of the type of contra-flow facility, the symbols should typically be centred at an off-set of at least 1.2m from the edge of carriageway (or other bounding feature) in order to discourage cycling too close to these and minimise various related risks to users (see notes 1 and 2).

iii. Coordination of instances of symbols with other road features

- Where possible then symbols provided for contra-flow cyclists should be broadly aligned with those provided for with-flow cyclists to the other side of the carriageway. However, this is not a strict requirement.
- Where any change occurs between types of marked facility (e.g. from a marked section of advisory route to a mandatory cycle lane or vice versa) or from a section of unmarked advisory route to a marked advisory route or mandatory cycle lane, then the spacing of symbol markings should be coordinated such that one is located at the start of the new section of marked facility.

- Where occasional vehicle crossings exist along the street then efforts should be made to coordinate symbols such that instances appear in front of these to remind exiting motorists of the existence of the contra-flow. However, where the frequency of vehicle crossings along the street is very high (as may be encountered in some more suburban residential streets) this is unlikely to be practical or necessary.
- Where provision of diagram 967 'route recommended for use by pedal cycles' upright sign plates is permitted alongside the contra-flow facility (See '3.5.2.f') then - where practical - cycle symbol road markings should be coordinated to be close to or alongside these. However, this is not a strict requirement and avoidance of over-use of symbol markings should take precedence where it is not simple to achieve.
- Where areas of kerb side parking occur along the kerb edge used by contra-flow cyclists then cycle symbol markings should always be coordinated with these. See 'i.' about the frequency of spacing of the symbols in such circumstances. See also the next point where those parking bays protrude into the path of cyclists.
- Where a protrusion exists along the edge of carriageway that is used by contra-flow cyclists then the symbol markings should be coordinated such that one is located beside the start of the protrusion as discussed in 'e.'.

NOTE 1: Examples of likely risks include:

- (a) *following drivers attempting to squeeze by due to poor road positioning;*
- (b) *lack of visibility to road users waiting to emerge from side road junctions and/or increased likelihood of them trying to dash out in advance of the cyclist reaching the junction; and*
- (c) *being struck by the doors of parked cars as these are opened by drivers.*

NOTE 2: Where a marked lane is present then this may mean that the symbols are off-set from the centre of the lane.

Signage to assist cyclists travelling contra-flow when negotiating around protrusions at the edge of carriageway

- e. Where contra-flow cycle lanes or routes are provided to a street and protrusions exist along them at the carriageway edge that users will need to negotiate around then
 - i. Where the contra-flow is an unmarked advisory route
a diagram 1057 'cycle symbol' marking should be positioned beside the start of the protrusion at the end of it that contra-flow cyclists will first encounter. The centre of the marking should be off-set from the edge of the protrusion approximately 1.1m into the carriageway. Other complex road markings (such as inclined warning lines, advisory lane markings or tapering hatched areas) should not be introduced on the approach to protrusions to guide cyclists out around them (see note 1).
 - ii. Where the contra-flow is a marked advisory route or mandatory cycle lane
signage and other requirements to help cyclists negotiate around the feature will be agreed on a case specific basis with approving officers. In general, a minimalist approach should be taken to help achieve a simple and easy to interpret road arrangement for all users.

NOTE: This includes consideration of the use of features like road studs, kerb markers, 'keep left/right' signs and lit or retroreflective street furniture on or on-the-approach to a feature to make it appropriately visible.

Use of blue 'route recommended for use by pedal cyclists' plates on footways beside contra-flow lanes and advisory routes

- f. Use of diagram 967 'route recommended for use by pedal cycles' upright sign plates on the footway beside a contra-flow lane or advisory route is to be generally avoided. Nevertheless where the contra-flow is an advisory route then - subject to 'g.' - sparing use may be permitted by

approving officers to assist with way-finding and route continuity at the at the start of the facility and at intermediary junctions along it. Use in all other circumstances will require agreement to a level 1 departure.

- g. Where they are permitted then 967 'route recommended for use by pedal cycles' upright sign plates should only be located on posts or columns that also accommodate other traffic signs and may not be located alone.

Use of coloured surface treatments to contra-flow lanes and advisory routes

- h. Generally, this is only likely to be permitted where contra-flow facilities on 30mph roads pass side road junctions and an evidenced safety need that could not otherwise be avoided (else addressed via less visually intrusive means) can be demonstrated. Normally this will be via the findings of a Road Safety Audit.

3.5.3 Signage for pedestrians

- a. Use of warning signs for crossing pedestrians on one-way streets should be avoided (see notes 1 -2). However, these may be permitted by agreement to a level 1 departure. An evidenced safety need that could not otherwise be avoided (else addressed via less visually intrusive means) will need to be demonstrated. Normally this will be via the findings of a Road Safety Audit. See also section 3.1.

NOTE 1: This includes diagram 810 'one-way' signs and diagram 963-963.2 'bus/cycle lane – look right' signs.

NOTE 2: Avoiding the use of splitter islands and similar features on streets with contra-flow cycle routes is likely to assist with avoiding the need for these signs as it will typically reduce potential confusion in the road layout.