

9.0 Cycles and Buses (Bus Lanes and Bus Stops)

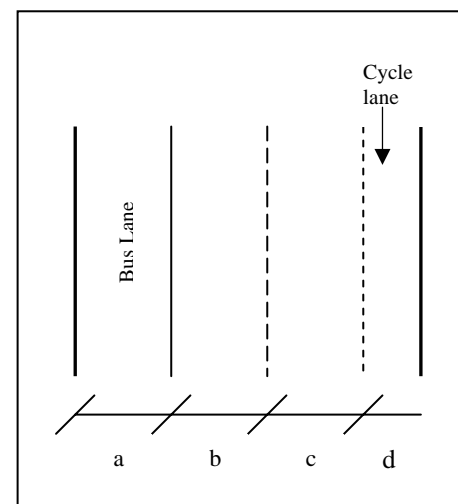
Cyclists can benefit from the introduction of bus lanes, although careful design is required to avoid cyclists from being inadvertently 'squeezed'. In addition, bus stops can cause problems for cyclists and careful design is required, especially at cycle tracks on converted footways.

9.1 With Flow Bus Lanes Design Criteria - Lane Widths

- A 4.0m or wider bus lane is ideal as this allows buses to safely overtake cyclists (and cyclists to overtake buses at bus stops).
- Bus lane widths between 3.1m and 4.0m should be avoided as buses may be encouraged to overtake cyclists where there is insufficient width, thus squeezing the cyclist (*Table 1*)
- The minimum bus lane width should be 3.0m (at this width, buses should follow a cyclist until there is space in the adjacent lane to overtake).
- At the termination of the bus lane, consider continuing with a cycle lane.

9.1.1 Adjacent and Opposing Lane Widths

- These lane widths are just as important as the bus lane width, as cyclists can be unintentionally squeezed by traffic when travelling in the opposing direction
- Consideration should be given to providing a cycle lane on the opposing lane (or shared use on footway) to protect cyclists and provide two-way cycle facilities where road widths permit.
- If road widths do not allow for a cycle lane to be provided in the opposite direction, then the lane widths should be shared such that the opposing traffic lane is wider than the lane adjacent to the bus lane. Or consider providing a cycle track on a converted footway



Carriageway width (m)	Lane Width (m)			
	Bus Lane (a)	With flow (b)	Opposing Lane (c)	Cycle Lane (d)
9.00** or 9.0m	3.0	2.8	3.2	
9.5 or 9.5	3.0	3.0	3.0	
10.0	3.0	2.8	2.7	1.0
10.5	3.0	3.0	3.5	0
11.0	3.0	3.0	3.0	1.0
11.5	4.0	3.0	3.0	1.0
12.0 or 12.0	3.0	3.1	3.2	1.2
	4.0	3.0	3.0	1.0
	4.0	3.1	3.2	1.2
	3.0	3.0	3.0	3.0 *BUS LANE*
	4.0	3.25	3.25	1.5

**Assumes general carriageway width without pinch points (localised widening could be considered)

* Assumes 30mph roads. Widths could vary due to gradient, HGV composition, parking, bus and cycle flows.

9.2**Contra-Flow Bus Lanes**

Cyclists should be able to use contra flow bus lanes although particular attention needs to be paid to:

- Whether the cyclist can enter and leave the lane safely including the consideration of signal control at junctions at both ends of the contra-flow lane
- The danger of buses leaving the confines of an unsegregated contra-flow lane to overtake a cyclist
- Safety for cyclists at side road junctions

9.2.1**Contra-Flow Bus Lane Widths**

- Where no physical separation is provided such as barriers, islands then a 3.2m lane is acceptable for short lengths (4.0m is preferred)
- Where physical separation exists, try to provide 4.0m, unless cycle numbers are extremely low

9.3**Bus Only Turns and Bus Only Streets**

- Cyclists should be permitted to make all manoeuvres that buses can unless there are overriding safety implications of allowing this
- A cycle by-pass should be provided at the entrance to a bus only street that is signed as 'no-entry except buses'

**Photo 9.1**

Bus and Cycle Lane with additional unsegregated shared path/ cycle track on a converted footway (note blue 956 sign).

9.4 Bus Stops

Due to close interaction of pedestrians, bus passengers, buses, general traffic and cyclists, bus stop design is particularly important so as to minimise potential conflict

9.4.1 On Carriageway Bus Stop Layouts

- If a cycle lane is provided (advisory or mandatory), then it should be discontinued when it reaches a kerbside bus stop cage, for the length of the cage.
- At a full width bus lay by, the cycle lane should be continued adjacent to the lay by bus stop cage marking
- At half width lay by, the cycle lane marking can be continued, but deflected around the outside marking of the bus stop cage. This is dependent on the available carriageway width

9.4.2 Cyclists and Bus Boarders (Build-outs)

- Bus boarders enable buses to better access the kerb for all passengers, especially those with mobility impairments, or adults with pushchairs. They also create additional space on the footway for pedestrians to pass and for bus passengers to wait. They can however create build-outs that force cyclists out into other traffic
- At half width boarders (1m), the cycle lane can be continued, but deflected around the outside marking of the bus stop cage. If this cannot be achieved then it should be terminated for length of the bus stop cage
- At full width boarders, the cycle lane marking should be discontinued when it reaches the bus stop cage, for the length of the cage
- Another option would be to run the cyclists onto the footway and behind the bus shelter (if there is sufficient footway width available)
- Reflectorised bollards should be provided on bus boarders

9.4.3 Cycle Tracks at Bus Stops

- Segregated cycle track/ footways will normally have the cycle track adjacent to the kerb, which can lead to conflict between cyclists and bus passengers waiting at bus stops, and also bus passengers alighting a bus. This is one of the reasons why shared use facilities should only be provided where all other methods of providing cycle provision have been exhausted (i.e. traffic reduction, alternative routes, cycle lanes)
- In this instance, the preferred layout is to provide the cycle track to the back of the bus stop shelter, if this cannot be provided then give way markings (and/or tactile paving) should be provided where the cycle track meets the bus stop (see photo 9.2)
- At unsegregated shared use cycle track/footways, provide as wide a footway as possible

Tactile markings are required. See the DfT guidance at:

http://www.dft.gov.uk/stellent/groups/dft_mobility/documents/page/dft_mobility_503283.hcsp

Photo 9.2



For more information on the interaction between cycles, and pedestrians at bus stops see the Centre for Independent Transport Research in London's 'Bus Stop Design for Minimum Conflict'

<http://www.cilt.dial.pipex.com/conflict.htm>

Photo 9.2 Cycle track gives way at bus stop. (Note: No tactile paving has been provided, however)

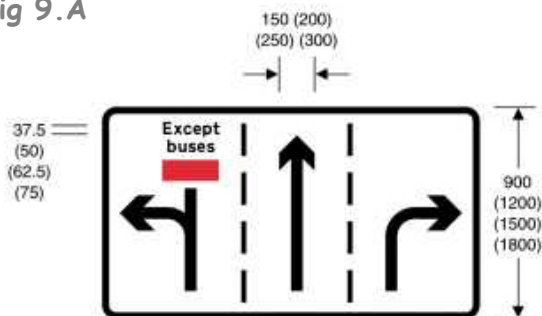
9.5

Bus Lane signing

Sign reference 877

- Sign used to show appropriate lanes for different manoeuvres at a junction ahead.
- For bus lanes, a permitted variant of the 'Except buses' text above the red bar is 'Bus lane'. 'Except buses and cycles' is not a legal version of this sign and should not be used on future schemes (see photos below).
- Sign colour shall be white with black text, unless on a primary route where it should be green with white legend.

Fig 9.A



877
Appropriate traffic lanes for different manoeuvres at a junction ahead
(Alternative types)

For all future signs please use legend 'Bus lane'

Figure 9.A

Sign 877 (Traffic Signs Regulations and General Directions 2002)

Photo 9.3



Photo 9.3

Incorrect sign using text 'except buses and cycles'

Photo 9.4

Correct layout of sign; legend states 'except buses' (can be varied to 'bus lane' where cycles are permitted as well as buses)

Photo 9.4

