

13.0

Access Barriers and Bollards

Bollards, barriers and humps can be used to deter motor vehicles from using cycle tracks/paths and also to reduce the speed of cyclists.

Barriers should only be provided where there are compelling reasons to do so on safety grounds

Photo 13.1

Restrictive barrier



13.1

Why Erect a Barrier?

For preventing motorised vehicles from using the cycle track/path

Vehicles can be physically prevented from accessing or obstructing the start and end points of cycle tracks by kerbs, bollards or barriers

BUT

It is difficult to maintain access for cyclists, and pedestrians with pushchairs/ those in wheelchairs or on mobility scooters whilst limiting access for those on motorcycles

DO NOT ERECT barriers from the outset but use bollards to restrict vehicular access. Only use more restrictive measures if a particular problem such as motorcycle use persists

To control the speed of cyclists in order to enhance their safety and the safety of pedestrians.

- It is sometimes necessary to slow down cyclists where sight lines are poor and on downhill sections of a route
- In addition it is useful to implement physical features that prevent cyclists emerging at speed onto a busy road or footway

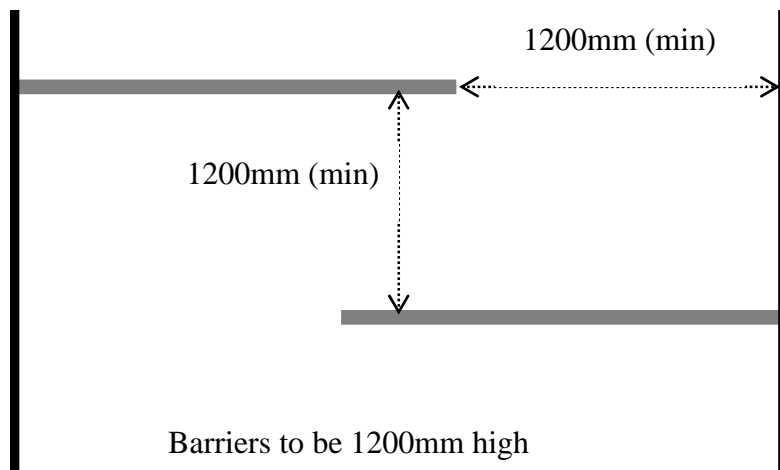
- A change in surface treatment, texture or colour can be useful method to warn cyclists of a changed environment or the need to slow down.
- Rumble strips and humps can be used in exceptional circumstances.
- Barriers can be used to check cyclists speed, but they must not hinder cyclists, pedestrian or wheelchair access. (See 13.3 for dimensions)

13.2 Barriers that Maintain Access for All

- Barriers should only be provided where there are compelling reasons to do so on safety grounds. For example if complaints about motorcycle use have been received from users of the cycle track/path then barriers can be erected if it is considered that this will improve general levels of safety for all.
- Barriers can be erected as a temporary solution, with the intention that they will be removed once levels of use have dropped.
- But remember, motorcycles may join the route mid way along and as such, barriers erected at the start and end points may be of limited use.
- Barriers that restrict wheelchair access may be challenged under the Disability Discrimination Act (DDA) 1995.

Fig 13.A

Staggered Barrier Dimensions That Allow Cycle, Wheelchair and Pushchair Access



These measurements conform to guidance in DfT 'Inclusive Mobility' 2002

http://www.dft.gov.uk/stellent/groups/dft_mobility/documents/page/dft_mobility_503282.hcsp

- Barriers should be 1200mm high (measured from ground level) and *colour contrasted with their surroundings* (reflectorised bands are sufficient - not shown on photo 13.2).
- An offset of 1200mm between the two barriers '*allows wheelchair users convenient passage*'
- The barriers should be designed to prevent guide dogs from walking under the rails.
- Visibility should be afforded through the rails.

Source DfT 'Inclusive Mobility'

Photo 13.2



Photo 13.2 Shows a barrier layout that conforms to DfT Inclusive Mobility Guidance (Fig 13.A). Note that cyclists are instructed to dismount.

13.3 Motorcycle Use/Abuse of Cycle Tracks: Countrywide Experience

- Problems differ from path to path, as such, adopting a blanket response to a problem may not help.
- Motorcycles are rarely a problem in terms of using cycle tracks as a route to get somewhere. Motorcyclists rarely use tracks to get from 'A' to 'B', rather they use them simply as routes for off road riding and they often ride at high speeds regardless of other users. This can cause a noise nuisance and intimidate other legitimate users of the path
- It is difficult to exclude motorcycles from a cycle track without inconveniencing all other users. Barriers can inhibit their use but also tend to inhibit other legitimate users and excessive numbers of barriers or barriers that restrict users excessively will result in fewer people using paths. Too many unjustified barriers are also an unnecessarily increased maintenance liability for the authority
- Instead it is advisable to aim for having no barriers, as this will maximise usage of paths and to tolerate some motorcycle usage as long as it is within acceptable bounds. It is often the case that paths with high numbers legitimate users are self regulating and lower levels of motorbike activity takes place because of the greater numbers of disapproving genuine users being present
- Barriers can be erected on a short term basis to control a particular problem, they can then be removed once the problem has reduced
- It is almost impossible to make a linear route of many miles 'motorbike free' without impeding use by others. In addition, barriers can easily be avoided or the path can be joined from other links thus rendering some of the barriers redundant
- Once erected, barriers can often be targeted for vandalism, damage and/or removal by some users who are insistent on continuing to motorcycle. In this instance, removing the barrier (following liaison with the police) may be the preferred option.

Photo 13.3



Photo 13.3

A novel approach used elsewhere!

The point of this design is that it is trying to stop the ease of getting a motorbike through the gap, however the barrier posts mean a minimal intrusion for genuine users trying to get through.

Please note – this design is not endorsed for use in Nottinghamshire, however.

13.4

Other Barrier Options

13.4.1 The 'A' frame barrier

- This will allow cyclists through but they will need to dismount and it may be a struggle for tandems and bikes with panniers
- Pushchair and wheelchair access is more restricted
- Ensure frames are not mounted too low into the ground



Photo 13.4
An 'A' frame barrier in use.

13.4.2

The 'K' Barrier

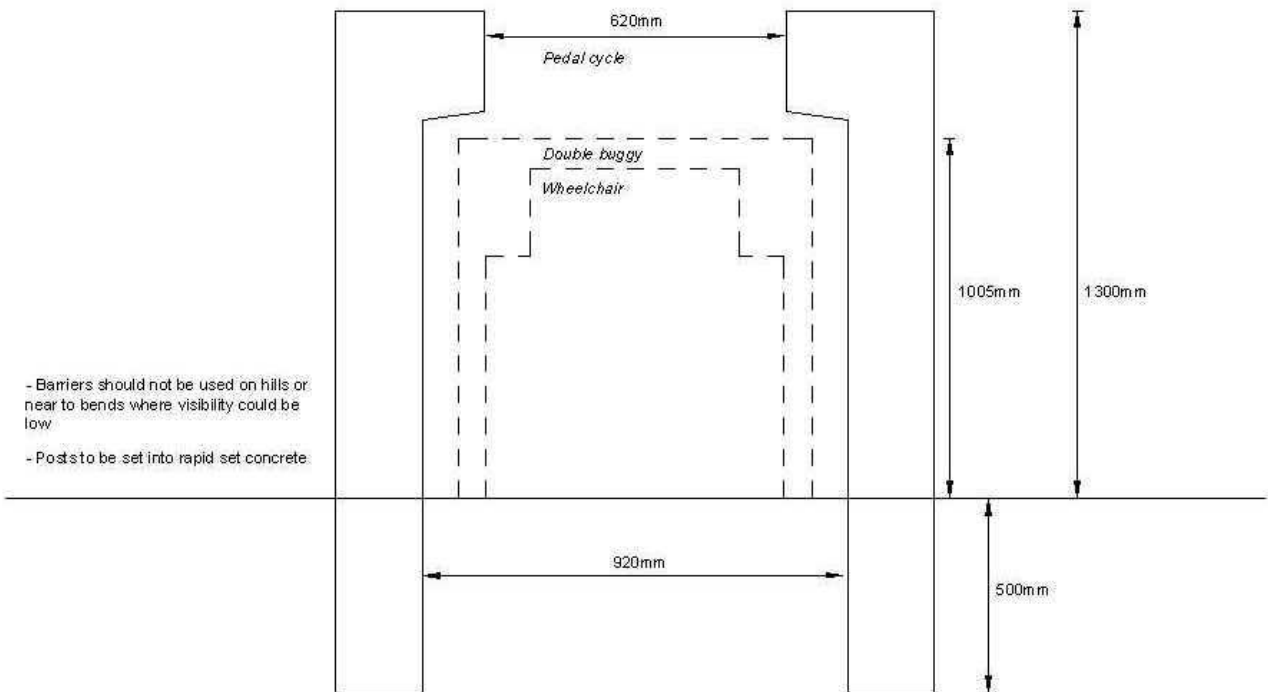
- Billed by its makers as 'the most accessible motorcycle barrier to date'
- Initial trials took place in Sheffield, Doncaster and Barnsley (photo 13.5)
- Restricts motorcycle use by impairing handlebar access
- Wheelchairs and double buggies can be manoeuvred through
- It has squeeze plates that can be adjusted in width
- The floor provides a tactile surface that does not rut or puddle
- There are several sites in Nottinghamshire with these in use now.



Photo 13.5
'K' Barrier.

13.4.3 Recommended dimensions for access through a barrier

Fig 13.B



13.4.3 Bollards

- Bollards are the preferred method of keeping motorised vehicles out of paths that can be used by cyclists
- Cyclists can move straight through and wheelchair users do not have to deviate sharply from the desire line to round the bollards
- They do not stop motorcycles from entering although the use of staggered bollards makes it more difficult (see Photo 13.6)
- Wooden bollards can be used in parks/ more rural locations to fit in with the environmental character.



Photo 13.6
 Staggered bollards make life more difficult for motorbikes but still allow for convenient access for cyclists, wheelchairs and pushchairs

Courtesy CTC

13.4.4 Wheelchair/ cycle bypasses in barriers

Photo 13.7

A 380mm gap is left in the centre to allow direct cycle access through the centre of the pen created by the barrier. The dimensions slow cycles down, but don't require cyclists to dismount all together.

Courtesy Leicestershire County Council



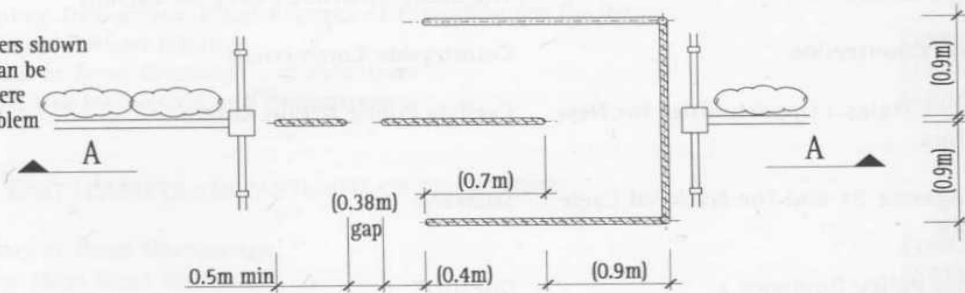
Fig 13.C

Diagram of the design shown in Photo 13.7 taken from Sustrans' 'Guidelines and Practical Details' document.

Fig 13.C

Third Option - Barrier (With Wheelchair Bypass)
Plan

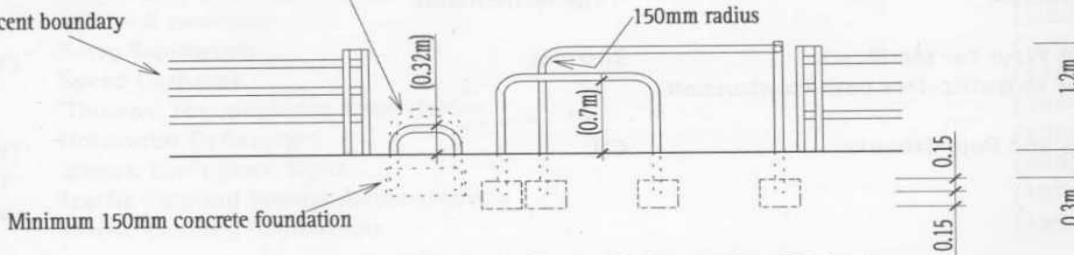
Initially omit barriers shown as shaded. These can be installed later if there proves to be a problem



Section A - A

Height may be raised to 0.5m where scramble motor cycles are foreseen as a problem

Adjacent boundary



Dimensions bracketed are essential for the effective operation of the barrier

13.4.5 Other barrier considerations

- Sustrans suggests (in 'National Cycle Network - Guidelines and Practical Details', 1997) that in urban areas 'simple gaps 1.2m wide may suffice as deterrents to motorcycles'. This 'is sufficient to allow access for the largest types of cycle currently used' and for people with physical impairments in wheelchairs and motorised two wheelers.
- Wheelchair users negotiating a barrier bypass may need to swing underneath the barrier when turning through the feature. Provide 700mm vertical clearance to the barrier rail.