

The law and management of public access rights vary widely between the four countries of the United Kingdom. Practical elements of the following advice apply in all of them but the legal requirements in Scotland and Northern Ireland may differ from those in England and Wales.

More advice is available on www.bhs.org.uk/accessadvice.

IMPORTANT This guidance is general and does not aim to cover every variation in circumstances. Where it is being relied upon, The Society strongly recommends seeking its advice specific to the site.

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Barriers to motor vehicles

Barriers which are intended to prevent access with motor vehicles are obstructions on a public footpath, bridleway or restricted byway unless:

- the right of way was created subject to their limitation on use
- they are installed by the highway authority under Section 66 or 115 of the Highways Act 1980 for the safety of legitimate users (including equestrians)
- on a byway open to all traffic, to assist with prohibition of use with motor vehicles because of a Traffic Regulation Order

Even if they are lawful, barriers can be a hazard to equestrians—riders and drivers of horse-drawn carriages—and their horses, and to other legitimate users of the way, and may prevent their use of the way. It is common for supposedly ‘accessible’ and authorised structures to be too difficult for some users because of the degree of strength or agility required.

- Riders may be unseated if their horse jumps the barrier, or is startled by it.
- The width, length and degree of bend for horse-drawn vehicles to manoeuvre is rarely considered, as well as the difficulty of any step or vertical obstruction to the wheels and horse(s).
- Cyclists may not be able to lift a bicycle over the barrier, especially electrically-assisted cycles, which are increasingly common, or tricycles (favoured by those with impaired balance or mobility).
- Wheelchair or mobility scooter users may be unable to pass.
- Visually impaired people may not detect a barrier and be injured by it, or unable to detect a way through, or discouraged from using a route.

The requirements of the Equality Act 2010 must be considered. A barrier affects people with impaired mobility and impaired vision as well as riders who may have difficulty negotiating the structure safely, and carriage-drivers are commonly excluded completely.

Equestrians are quite often people with limited mobility whose horse and/or vehicle provides them with highly beneficial means for open air exercise. Horse-drawn vehicles adapted for use by wheelchair users are increasingly common.

Evidence or perception

Installing a barrier is a common 'knee-jerk' reaction to antisocial use with motor vehicles, not least to be "seen to be doing something", but there may be no evidence that it will remove antisocial behaviour, and it will have a detrimental effect on legitimate users of the way. There should be genuine evidence of both need and effect, not just perception. Any barrier should be installed on a time-limited trial basis, with monitoring in place, to ensure that evidence is collected on reduction of antisocial behaviour in balance with impact on lawful use.

Barriers near the road

Any barrier should always be set well back from the roadside so that riders or carriage-drivers have space to align themselves for the structure and to negotiate it away from the additional hazard from motor vehicles. Structures should not cause equestrians to be delayed on the road at all as that increases their risk of being hit with a motor vehicle.

This general requirement may have to be relaxed at sites where there is a proven problem of fly-tipping or parking and the wish is to prevent motor vehicles pulling off the road by placing bollards. Bollards at the roadside can be easily negotiated by riders but may be a problem to carriage-drivers because of the length of horse and vehicle meaning they must swing out into the road to clear the bollards, but to set the bollards further apart would negate their effect on motorists.

A 'Horse stile (ridden horse routes only)' (below) or barrier (ridden horse routes only)' (below) of any type are not acceptable on a byway as they are impossible to use with a horse-drawn vehicle. On a bridleway, they must be installed well back from the roadside because of the risk of a horse jumping the barrier into the road or aligning to negotiate the barrier on the road while at risk from motorists. Barriers other than vertical bollards can cause difficulty to riders because horses may have been taught to jump horizontal obstacles.

If the solution appears to be a barrier close to the road edge, consideration must also be given to space for riders or carriage-drivers waiting to cross or join the road. Bollards are therefore likely to be the only acceptable constraint at the roadside.

All barriers must have:

1. Straight approach and exit of at least 3m length on a bridleway, 6m on byways to allow the horse (and vehicle) to be aligned and opportunity to assess the structure
2. Level well-drained ground free from overhanging vegetation to 3.7m height (in case a horse jumps the structure)
3. A non-slip and giving surface as a horse may jump the barrier and slip or be injured (i.e. **not** tarmac or concrete)
4. On a bridleway joining a road, ample space for at least three horses to wait between the barrier and a road (5m assuming at least 3m width available but need not be straight as in 1.)

Bollards

The preference of the BHS to prevent access by four-wheeled motor vehicles would be for bollards because they are the least restrictive option to legitimate users. They may also be used to prevent parking vehicles, which commonly obstruct access to a bridleway or byway for equestrians, particularly carriage-drivers who need greater width.

Lockable bollards which can be lowered may benefit landholders and the emergency services where occasional authorised motor vehicle access is needed. Bollards obviously will not prevent access by motorcycles or quad bikes but neither will any barrier that is not an obstruction to equestrians. The legal users of the right of way must not be compromised to prevent illegal use.

Bollards should have smooth tops and edges and have gaps between them of no less than **1.5m on a bridleway, 1.8m on a byway** (where a Traffic Regulation Order (TRO) limits use). On byways, the minimum gap is 3m so a gap of 1.8m is an obstruction unless authorised by the highway authority's rights of way service as necessary for the safety of users.

Round bollards are preferred. Lengths of reinforced steel joists (RSJ) or similar are **not** acceptable because of their sharp edges and corners.

Recommended **height of bollards is 600mm**. Taller bollards may be more vulnerable to being removed and may increase risk at the widest part of a horse and rider. Shorter bollards are more difficult for carriage-drivers to keep in view, especially when driving a pair. Very short bollards can be a trip hazard for all users.

Where the route has verges, trees or hedges to the sides, a central bollard is not acceptable unless the surface to each side of the bollard is level and even with height clearance to 3.4m and no hedges that may restrict width. Two bollards may be required to give a clear central passage for riders of 1.5m and for carriage-drivers 1.8m (where a TRO is in place).

On a byway, the gap between the bollards and 3m before and beyond it must have **level and even ground** across the width. Uneven ground between or in the approach to bollards may cause a carriage to tip and collide with a bollard. Vegetation must be maintained so that the full width between the bollards is available with a level surface. It is common that vegetation is not cut, so the growth around the bollards restricts the available width to a narrow central path, which makes the gap impassable for a horse-drawn vehicle.

It is unlikely that a gap of 1.8m will admit the type of four-wheeled motor vehicles most used for illegal or antisocial access. Smaller street vehicles are not usually a problem and the smaller four wheel drive vehicles (e.g. Suzuki Jimny 1,645mm wide) would have clearance of less than 80mm each side.

If a gap less than 1.8m is **proven** to be necessary on a byway, local carriage drivers may be willing to accept lockable bollards which can be lowered and for which they have the code, but this is only a solution where such acceptance has been negotiated by the highway authority with local users. The bollard when lowered must be less than 150mm high. Combination locks are more acceptable than key locking padlocks and the code should be circulated to the British Horse Society, British Driving Society and local harness clubs each time it is changed as well as a local list of users to whom it has been supplied. Failing to communicate with users about locks has withdrawn cooperation in many areas. Contact details for acquiring the code must be provided on site.

On a byway leaving a road, bollards should be set back by 6m, so that a horse-drawn carriage does not have to swing into the road to clear the bollards. It may be a difficult manoeuvre for some carriages, so not being exposed to motor traffic is preferred. Where the purpose of the bollards is to prevent fly-tipping or parking, it may be necessary to reduce this length but it should only be done where road traffic flow makes it possible for a horse and carriage to be lined up with the gap in safety.

Kent Carriage Gap – not recommended

A Kent Carriage Gap, shown in [Figure 1](#), was an arrangement of bollards at specific widths and heights intended to permit access with horse-drawn vehicles while excluding four-wheeled motor vehicles. The arrangement was supposed to allow narrower vehicles to pass between bollards 1 and 2, and wider vehicles to pass with one wheel between 1 and

3. However, this would be possible only with vehicles of specific design, which are rare as exercise vehicles today, even if common historically.

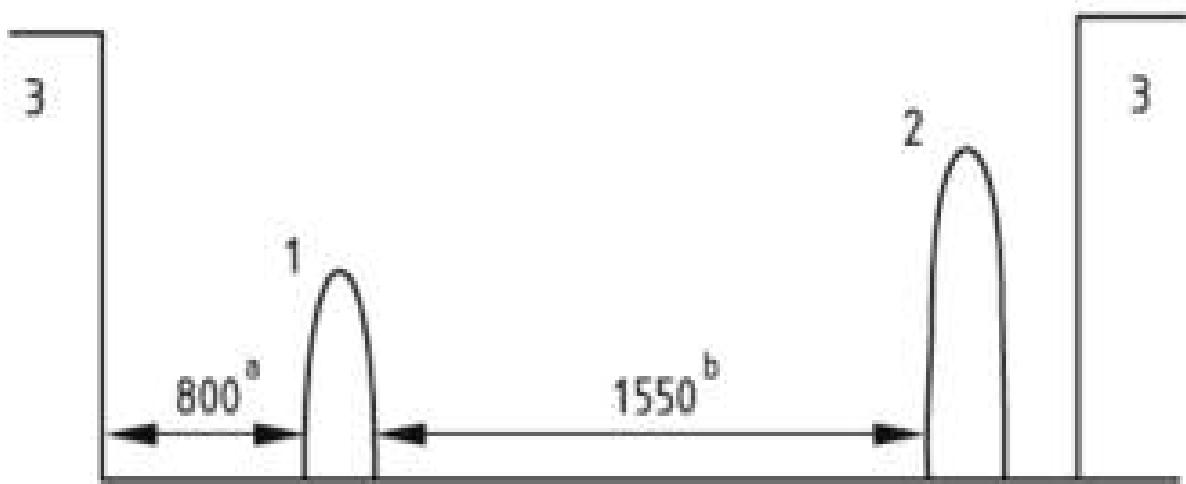


Figure 1 Kent carriage gap (not recommended) dimensions from BS5709
 1 300-380mm high, 2 750mm high, 3 fencing, wall, etc.
 a 600mm-no max, b 1520-1600mm

The Kent Carriage Gap was included in the British Standard 5709 for gaps, gates and stiles but the British Horse Society **is against its use and does not recommend it** because it obstructs many modern horse-drawn vehicles in use. It obstructs because:

1. The gap of 1.5m is too narrow for many vehicles to negotiate safely
2. Bollard 1 is too high for modern vehicles to pass with one wheel between 1 and 3 because their axle-to-ground clearance is often less than 200mm and erosion or uneven ground may increase the relative height of the bollard
3. It is impassable by a vehicle drawn by a pair of horses because for a wheel to pass between 1 and 3, 1 is in the path of one horse
4. Reducing the height of Bollard 1 to less than 200mm to allow clearance makes it a trip hazard on foot or for a pair of horses and it is likely to be obscured by vegetation as well as failing to prevent passage of four-wheeled motor vehicles
5. The pattern of bollards has rarely been installed accurately, which makes it more of an obstruction to more users; nor was the structure maintained, so ruts, erosion or vegetation increased the risks to users.

Structures for use on bridleways only

These structures will prevent access by horse-drawn vehicles and are therefore only to be considered on bridleways.

Horse stile (ridden horse routes only)

Few barriers are wholly effective in deterring motorcycles so the Society may accept that where there is a **genuine risk to public safety from motorcyclists**, the horse stile (sometimes called horse hops or motorbike traps) as specified in the British Standard 5709:2018 for Gaps Gates and Stiles may be installed on a bridleway if the highway authority can justify authorisation of a limiting obstruction which will affect legitimate users including, potentially, their safety.

Horse stiles can limit use by riders, especially children on small ponies, novices and horses which have been taught to jump such obstacles, and people in mobility vehicles, as well as some cyclists or people with pushchairs, so local use must be considered before installation.

Some riders have difficulty with horse stiles, particularly where a horse has not met the structure before so it is vital that the surface is level, even and non-slip to horses on the approach from both directions and throughout the structure.

They must not be used unless there is evidence that danger to users from motorcyclists is greater than the disbenefits to legal users.

They **must not** be installed on a byway as carriages cannot negotiate the obstacle (it would be like trying to push a heavily laden wheelbarrow up two high steps). Horse-drawn vehicles vary from 100 to 500kg so cannot be lifted over like a pushchair or bicycle.

Horse stiles are constructed using two parallel railway sleepers or equivalent with each sleeper lying on its narrow face across the line of passage, with fencing to each side forming a rectangle at least 1.5m wide and 1.2m long between the sleepers. Adjacent secure fencing is required to prevent illegal users going round the stile.

- Height of sleepers 190mm +/- 60mm
- 'Short edge' or diameter 80mm to 160mm
- Width at least 1525mm
- Distance between sleepers 1200mm +/- 100mm

All **these dimensions should not be exceeded or reduced**; to do so could render the obstacle more dangerous or pointless.

Figure 2 shows a British Standard horse stile with fencing to the right, and a motorcycle barrier that permits wheelchair users, pedestrians and cyclists to the left. (The gap to the left of the structures in the photograph was secured before completion.)

It is particularly important that the surface before, after and within the barrier is free-draining and is maintained to prevent erosion as hollowing of the surface would make the sleepers higher, increasing the severity of the obstacle and making horses more likely to jump or to trip.

Reducing the distance between the sleepers would increase the risk of a horse being unable to pass or trying to jump the obstacle. The distance is intended to be such that it is difficult to lift a motorcycle over it.



Figure 2 'horse stile'

The BHS does not recommend using suspended scaffold-type poles or metal bars as they are less visible to horses and if a hoof strikes them in crossing, the noise may startle the horse. The Society accepts that in some locations wood is too vulnerable to vandalism, in which case metal is necessary, but poles should not be suspended above ground as a horse's foot could slip underneath causing a serious injury.

A gate must never be hung above the stile or within 4m before or after the line of travel through the stile. The many small steps forwards, backwards and sideways to open the gate are difficult enough without also trying to do them over a step, which will be in the most awkward place.

Ideally, the top edges of sleepers should be rounded or chamfered to reduce injury to horses' legs, bearing in mind that the maximum height is high for a pony.

Clear space at least 4m long and 2m wide is required to both sides of the horse stile so that the horse can walk straight through the structure.

Where the stile is installed where a route leaves a road, space for at least three horses is required between the stile and the edge of the road so that they can wait together to cross the road. This also provides stopping distance if a horse should attempt to jump the stile towards the road and, when leaving the road, allows space for the horse to be attentive to the structure without the hazard of motor vehicles.

The ground through the stile and on the approaches should be maintained level, firm and well drained but not hard, slippery or stony. It must not be tarmac as a horse is more likely to slip when stepping over the barrier, and particularly if it should jump the barrier. Where a sealed surface is required, the BHS recommends use of resin or polymer bound grit-rubbercrumb. It is important that ruts, depressions or potholes do not form on the line of travel as this will increase the height of the step needed.

Step-over barrier (ridden horse routes only)



Figure 3 step-over vehicle barrier

A step-over vehicle barrier is a term for a strong metal barrier with a lowered mid-section over which horses can step. The mid-section must be low enough that it does not encourage a horse to jump it. More robust barriers of the same pattern as that in [Figure 3](#) **Error! Reference source not found.** are available.

As with a horse stile, access to the sides must be secured otherwise the barrier will not prevent access by motorcyclists. However, in doing so, legitimate users who cannot step over the barrier will be prevented from using the way and this must be considered in deciding that a barrier is justified, and that alternative provision is made for those users.

Step-over barriers should only be used on bridleways where all the following circumstances apply:

- Lawful motor vehicular access needs to be maintained while deterring illegal use
- There is insufficient space beside a locked field gate for a 1.525m gap
- There is clear evidence of persistent problems with unlawful four-wheeled motor vehicular access
- The surface is not tarmac or of any substance that may be slippery for horses
- The authority can legally authorise installation of the barrier and is satisfied that the requirements of its Public Sector Equality Duty are met

A barrier should be at least 5m from the edge of a road; more is desirable where space permits and additional width may be necessary to allow three horses to wait together to cross the road on the road side of the barrier. The length allows for stopping distance if a horse should jump the barrier towards the road and, leaving the road, allows the horse to negotiate the structure away from the distraction of motor traffic.

The space over the barrier and its approaches should be clear of overhanging branches and other hazards to a height of 3.7m in case a horse should jump the barrier.

The ground under the barrier and on the approaches should be level, firm and well drained but not hard, slippery or stony; that is, it should be a surface on which a horse can safely jump. This may require a commitment to maintenance. The surface **must not be tarmac** as this is too dangerous if a horse jumps the barrier and may cause a horse to slip when stepping over, particularly when wet. Where a sealed surface is required, the BHS recommends use of resin or polymer bound grit-rubbercrumb.

The lowered central part of the gate over which the horse steps should be at least 1.2m wide at the bottom and 2m wide at the top. The top of this bottom bar must be **no more than** 190mm ± 60mm from the ground.

Periodic maintenance of the surface under the barrier may be required to ensure it does not erode, so that the maximum height of the step-over bar is not exceeded. Maintenance should not be simply adding stone to any eroded hollow because loose stone is painful for horses to walk on and may cause injury. Raising the ground immediately below the barrier does not help as it is the height the horse must step which is important.

There should be solid wooden cladding on both sides of the central section, so that the metal barrier does not clang if the horse's foot strikes it. It may need to be painted so that the horse can distinguish it more easily from the ground. The edges of the wood should be rounded to reduce incidence of injury to a horse's legs.

As with lockable drop bollards (page three), use of this type of gate on a byway may be locally accepted provided the lock code is easily available to carriage-drivers, however, availability of the code and maintenance of access is vital for this to be considered.

Chicanes on bridleways (ridden horse routes only)

A chicane formed by lengths of post and rail fencing and/or a locked gate or sleeper across a bridleway can be a helpful means of reducing speeds of cyclists, warning users of proximity to a road or deterring illegal use with motor vehicles. The latter is achieved by the openings in the chicane not being apparent from the road so it looks like a solid barrier from a distance.

Chicanes **must not be used on routes** open to carriage-drivers as the space needed to manoeuvre is too variable to accommodate all and the structure will either be unfit for purpose or an obstruction.

As with all other vehicle barriers, they should be set back from a road by at least 5m so that a group of horses has space to wait at the roadside without being separated by the barrier and, should riders experience difficulty negotiating the barrier, they are not immediately exposed to the traffic on the road. At some sites, risk of vandalism makes wooden fencing undesirable, in which case metal may be used so long as edges and corners are rounded.

There are four common variants as shown in :

1. Two barriers staggered across the track without an overlap,
2. Two barriers with an overlap,

3. Two barriers forming a 'u' shape gap round the end of a third barrier and
4. Five barriers forming a passage round a central island.

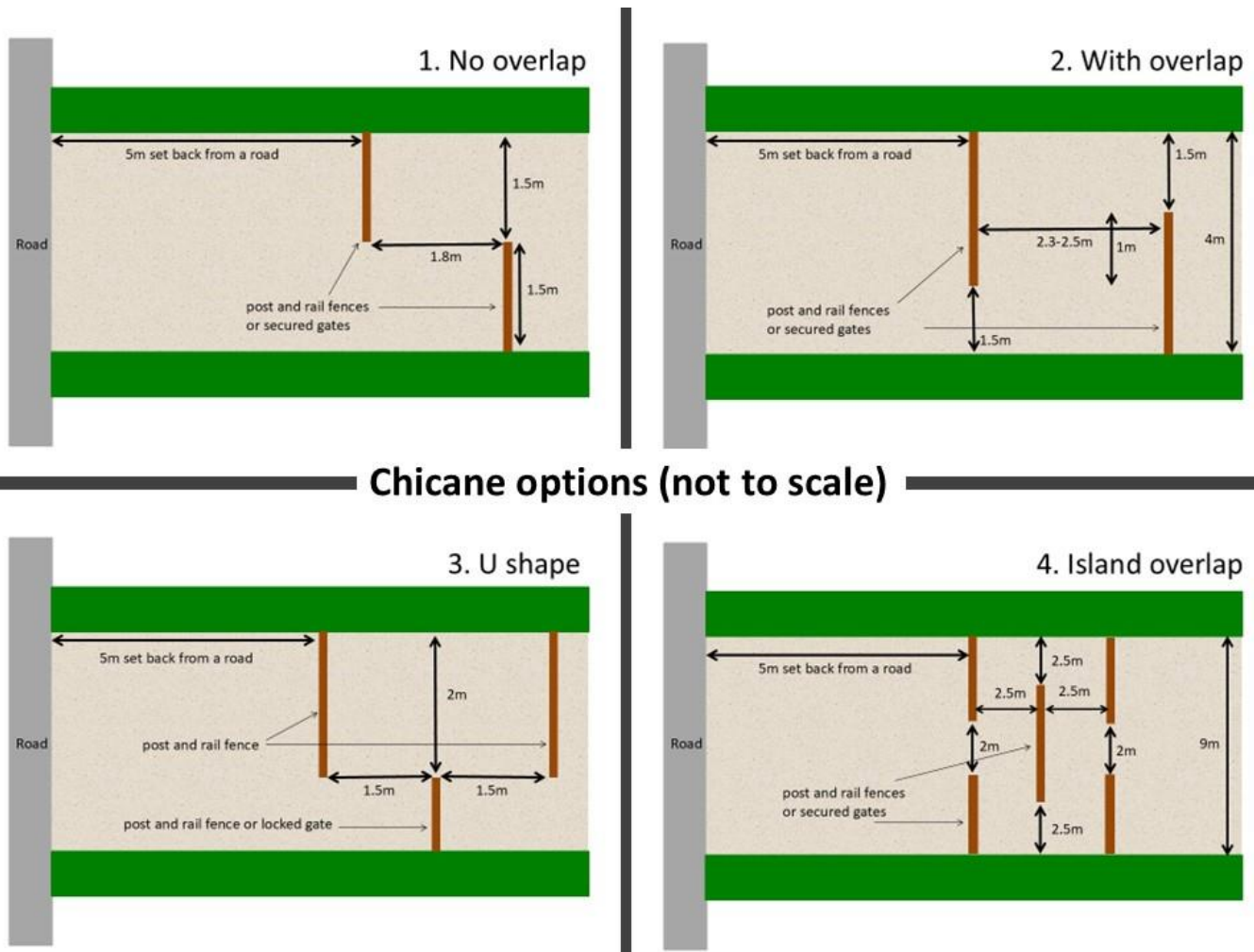


Figure 4 plans of options for chicanes

Each variation can fill a wider track by extending the barriers but the gaps are the minimum required whatever the length of barrier or overlap because there is a limit to the degree to which a horse can easily bend to negotiate the barrier.

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