Advice on **Road Crossings for Equestrians** in England and Wales

The British Horse Society

The law and management of public access rights vary widely between the four countries of the United Kingdom. This advice note is written for England and Wales and although elements of the advice may be applicable in Scotland and Northern Ireland this cannot be assumed.

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In providing specifications for ways and facilities for equestrians, the British Horse Society considers all equestrian users (those riding, leading or driving horses). This may result in a high specification which might not be appropriate in all circumstances. The recommendations should be read with this in mind. If the specification seems inappropriate in a situation, the Society strongly advises consultation with its local representative to establish what may be acceptable at a particular site. Sites vary so much that BHS specifications can only be general in nature and may require tailoring for any site.

Routes used by equestrians include bridleways, byways, unsurfaced unclassified roads, quiet lanes, permissive paths, commons and public open space; most of which leave riders and carriage-drivers no choice but to use busy roads to reach them.

Generally, crossing a main road is much preferred by equestrians as far safer than proceeding for any distance along it. An underpass or overpass are the ideal for crossing a busy road but commonly cannot be provided on the grounds of cost or available space and an at grade crossing is the only option.

Sightlines

It is sometimes possible to improve the crossing point through clearing vegetation to increase sightlines and provide sufficient space for horses to wait away from the kerb or surfaced carriageway edge.

Signs in the verge or footway sometimes obstruct equestrians' sightlines, because they are generally at least a metre above a pedestrian or cyclist. Where possible, signs should be avoided within sightlines at an equestrian's height (1.8-2.4m driving, 2.25-2.6m riding), which may also help drivers of some goods vehicles to see the equestrians. Design of a new crossing should ensure sufficient land is available for signs and other street furniture without affecting sightlines for those waiting to cross.

Corrals

Fenced corrals are not usually necessary although in some environments they can help horses and equestrians feel safe. Structures can also influence the behaviour of motorists by appearing to narrow the carriageway and therefore reduce speed or increase awareness of a hazard.

Warning Signs

Warning signs to motorists of horses on the road (DfT P550.1) on the approach to a crossing should be considered. Lit or flashing warning signs which are activated by the presence of equestrians can be highly advantageous in alerting motorists and reducing incidents. Such signs are operated by equestrians at a control box on approaching the road or activated by a sensor. The control and signs must be set back far enough that motorists approaching are alerted and have time to slow before reaching the crossing and that this coincides with the equestrian reaching it.

These signs could also be used where equestrians are forced to use a stretch of road with poor sightlines in between junctions with safer routes.

Obstructions and Barriers

Structures in the verge may remove the potential for the verge to be used by riders as a refuge while waiting to cross, particularly if there is a group of riders. Cutting grips in the verge for drainage is also a hazard, particularly as these commonly become quickly overgrown and are not visible. Reduced cutting regimes mean that verges become overgrown and cannot be used as a refuge.

Road safety barriers (e.g. Armco) are a common hazard obstructing the points where equestrian routes cross carriageways, particularly on trunk roads. They force equestrians along the road rather than being able to cross directly. Such barriers should always have gaps with rounded edges adequate for a horse to pass through at or close to the line of the crossing. The gap will need to be at least 1.8m for horse-drawn carriages, 1.5m for ridden or led horses. In certain circumstances, depending on the site, a lesser width may be agreed by the British Horse Society for a byway.

Joining a Road

Bridleways or byways ending at a main road should not have a gate within several metres of the road edge, partly to ensure there is space well off the road for equestrians to wait, and partly so that equestrians are not negotiating a gate while at risk from motor traffic close by. (A gate is a difficult and hazardous manoeuvre for a rider and for a driver requires one person to be on foot.)

Design

Structures and design of trunk roads are subject to Department of Transport prescriptions. These are mainly provided in the Design Manual for Roads and Bridges (DMRB). While local roads do not have to comply with the DMRB, it is commonly used as a guide and may still contain helpful information with regard to equestrians. Volume 6 Part 3 and 5 are likely to be of most interest.

For bridges and underpasses, see BHS Advice on Bridges, and on Width, Area and Height respectively.

Trunk Roads and Dual Carriageways

At grade crossings of dual carriageways are difficult and sometimes impossible for many horses. Road designers or others involved may consider crossing easier because those crossing are only negotiating traffic from one direction at a time. However, unlike cyclists or pedestrians, equestrians may find it too dangerous to wait on a central reservation; particularly if there has already been a wait to cross the first carriageway and if waiting for longer than a minute, which is commonplace on many dual carriageways. The noise and strong air currents from passing vehicles can be distressing for horses.

On single carriageways traffic will commonly be held behind slower vehicles, creating gaps between vehicles long enough for equestrians to cross, except on roads where traffic is so dense it forms a continuous stream. On busy dual carriageways, gaps tend to occur only when a lorry is overtaking slowly, holding faster traffic behind it, and creating a gap ahead. This may be infrequent, resulting in continuous traffic and waits of several minutes for a gap.

The preferred means of crossing a dual carriageway is by an underpass or overbridge. Ideally, the provision of underpasses where the road is on embankment and overbridges when it is in cutting would minimise visual impact and the length of ramps. Special factors which will have to be considered include high water table and high load routes, plus environmental impact of structures.

An underpass of sufficient height where a road is not embanked is often impractical without incurring drainage problems. Even if the depth below the road is available, the length of ramp to comply with the 5% gradient required for cycles or mobility vehicles could be difficult to accommodate. Where an underpass is not practical, an overbridge is the next choice, however, this too is often impractical because of the required height of the bridge and the land required for ramps.

Where bridleways, byways and minor roads are diverted to a bridge or underpass, provision should be made alongside the carriageway as far from the traffic as possible, with screening for noise reduction.

Where an underpass or bridge is not practical, a signal controlled crossing at grade should be considered.

Signal Controlled Crossings

Equestrian 'Pegasus' signal controlled crossings are a means of creating a relatively safe means of crossing roads at grade, which is cheaper and more practical on existing roads than the creation of an underpass or bridge. Where new roads are planned, the British Horse Society recommends the use of underpasses as the first choice of crossing.

Pegasus crossings are derived from pedestrian Pelican crossings, which control traffic signals from a push-button operated by the user.

The standard design for a signal controlled crossing segregates equestrians from cyclists and pedestrians with a separate holding area and crossing. This can mean that a new crossing is refused because of insufficient space. It is rare that crossings are so heavily used that conflict between different users while waiting is likely, therefore there may be circumstances where a variation from the standard design is appropriate.

The waiting period between pressing the button and lights changing to stop the traffic is of primary importance at an equestrian crossing. It must be as short as possible as horses may become restless while waiting.

Recommendations for Pegasus crossing construction and dimensions were produced by the Department of Transport in Traffic Advice Leaflet 03/03 Equestrian Crossings. This advice has been archived but may be of use.

The Design Manual for Roads and Bridges Volume 6 Section 5 CD 143[1] Designing for walking, cycling and horse-riding (formerly TA 90/05, TA 91/05, TA 68/96, TD 36/93) includes Pegasus crossings.

The Traffic Signs Regulations provide standard formats for the control panels and lights used by riders.

The BHS emphasises the following points:

- Ideally, any of the horse buttons on a Pegasus crossing should give a shorter waiting time than the ordinary pedestrian/cycle level buttons.
- Buttons should be positioned at a height so that accommodates the height variation from a child's pony to a large horse so they can be easily reached by all riders.
- Waiting pens are not always necessary and may be considered by site. There is a simple Pegasus on the edge of Lincoln that has no waiting pen, in spite of being on an A road into the city centre.
- Waiting pens are not constructed at every point where bridleways cross roads. If there is a good flow of walkers and cyclists as well, then separation or pens may be advisable, but not everywhere.

[1] Search for CD143 on www.standardsforhighways.co.uk/dmrb (not linked because too frequently changed)

- Fencing around waiting areas at a Pegasus in rural areas is only necessary if there is a drop or some other hazard beyond it, unless the waiting area is in the middle of a dual carriageway, when it may be helpful.
- TAL 03/03 stated under Shared Use that, "it is usually desirable to provide a cyclist and/or pedestrian as well as an equestrian crossing facility". This is excessive in most circumstances particularly as it almost doubles the costs of equestrian crossings, making them prohibitively expensive to install.
- Horse riders and walkers and cyclists have coexisted on many bridleways that have as little width as two to three metres without problems, and they wait to cross roads together where there is no Pegasus crossing without any accidents between non motorized users.
- All that is needed in most rural situations is a reasonable space for horses behind the one for pedestrians and cyclists, and for the button for equestrian use to be sited in the equestrian waiting area.

Publications

Design Manual for Roads and Bridges Volume 6 Section 5 CD 143 Designing for walking, cycling and horse-riding (search for CD143 on www.standardsforhighways.co.uk/dmrb, not linked because too frequently changed)

TAL 03/03 Equestrian Crossings (archived)

TD 50/04 The Geometric Layout of Signal controlled Junctions and Signalised Roundabouts*

TA57/87 Roadside Features*

*May also be withdrawn in the current review of the Design Manual for Roads and Bridges.

Sites with low level of use or limited space

At some sites for retro-fitting, a Pegasus crossing may not be considered feasible because of lack of space or where the cost is not justified by the level of equestrian use. On the basis that 'something is better than nothing' at such sites, a lesser provision may still help equestrians to cross a road in safety and this would be preferable to them being forced onto the road or having to cross without control of the motor traffic. There are a frightening number of examples of crossings used by horses where only a pedestrian/cyclist crossing has been provided and equestrians are forced to risk the uncontrolled traffic to cross or are prevented from using the route.

A separate crossing and fenced waiting areas are not always necessary. A non-standard crossing may be installed by the highway authority by seeking consent for variation from the Department for Transport plus, while the DMRB is generally accepted as a guide, it applies only to major roads..

The Society suggests a range of options dependent on the site and number of non-motorised users using the crossing at any one time:

1. Pelican/Puffin/Toucan with additional button box at the back of the footway at 2m high so a ridden horse is not adjacent to the traffic while a rider operates the button and waits
2. As 1 with post further back from carriageway, most appropriate where bridleway or byway is at the crossing, so the 'waiting area' is the last part of the bridleway
3. As 1 with fenced set back waiting area
4. Pegasus as specified in DMRB

1-3 do not require an additional segregated crossing and may be feasible where the number of non-motorised users at any one time is low enough that it is uncommon for equestrians to be waiting to cross with pedestrians and cyclists (however, tolerance between different types of user should be encouraged so that the need for segregation is reduced). Where a second button box at rider height is provided, it can be programmed to operate the lights with a shorter waiting time. All options assume that horses are legally permitted on the highway to access the crossing. If the crossing is on designated footway, then legal provision can be made for horses at that point.

Standards for crossings require tactile paving at a pedestrian crossing but not at an equestrian crossing. Tactile paving rarely presents a problem to horses in a small area (as is usually found at a crossing) so is not a limitation on horses being provided for at a non-Pegasus crossing.

Some horses and riders would be able to use a standard Pelican or Puffin crossing with an additional higher button box positioned so that it could be reached with the horse parallel to the kerb. This may be feasible in an area where motor traffic is at or below 30mph and where equestrian rights exist or are provided across the footway.

Where a signal-controlled crossing has not been considered necessary, approaching motorists may be warned of horses crossing or on the road by flashing warning signs (DfT P550.1). The signs may be activated manually by the equestrian at a control set back from the road, or automatically by sensor. These are particularly useful where sightlines are poor for the crossing or traffic speeds are more than forty miles an hour.

Examples of Pegasus Crossings

- A405 Brickett Wood, Herts (deviation from the standard because of lack of space)
- A507, Millbrook
- A322 Guildford Road, Bisley (deviation from the standard because of lack of space)
- A3 Wisley between Richmond Park and Wimbledon Common
- Ducks Hill, London Borough of Hillingdon: straight road 50mph, woodland both sides
- Windsor Great Park, Royal Borough of Windsor and Maidenhead: two lane road
- Off A602 Stevenage, Hertfordshire across entrance to Sainsbury's; two lane road 30mph
- Pennine Bridleway at Waterfoot A681, Rossendale: two lane road 30mph

- A57 Saxilby Road, Lincoln, West Common; two lane road 30mph
- A43 Towcester, Northamptonshire: dual carriageway adjacent to roundabout

The BHS has many other examples if required.

IMPORTANT This guidance is general and does not aim to cover every variation in circumstances. The Society recommends seeking advice specific to a site where it is being relied upon.