

Bollards

Workplace transport site safety information sheet WPT08

This information will be useful to anyone who uses workplace transport or who works where it is used. It will help employers, managers and supervisors to assess their workplace and make improvements. The checklists will help you to prepare your risk assessment.

Bollards can be used to channel traffic, protect pedestrians, and separate pedestrians and vehicles. They are also used to control access to specific areas, such as public spaces, footpaths and secure parking bays. Using the wrong sort of bollard or putting one in the wrong place can cause problems for pedestrians and vehicles. They can be particularly difficult for blind or partially sighted people to negotiate.

Bollards are very useful in the right place but you need to think about whether they are the best solution to your problem.

Common problems

Problems are often caused by the wrong design of bollard and/or putting the bollards in the wrong place. Common problems this can cause include:

Damaged bollards: Bollards can be hit by vehicles or worn by age or environmental conditions. Metal bollards and reinforced bollards can leave exposed sharp metal edges. If a bollard is hit by a vehicle it can be broken and become a stump. In some cases surrounding pavement can be broken. Both are trip hazards and increase the risk of a pedestrian accident.

Wrongly sized or spaced bollards: Bollards can be spaced too far apart resulting in vehicles getting into areas they are not supposed to. This can cause an increase in accidents. Bollards that are too short can be a trip hazard – it is recommended that bollards are at least 1200 mm high.

Too many bollards: Where too many bollards have been used they become obstructive. People may change their path of travel, eg if there are too many bollards on a footpath pedestrians may choose to leave the footpath and walk on the road.



Photo Jackie Stevens

Bollards are not easily visible: Bollards need to be clearly visible in all light conditions and by all site users, particularly drivers. Often bollards are in dull colours that lack contrast with their surroundings and cannot be seen in poor light conditions or by those who are blind or partially sighted.

Checklist – what to look out for

- Bollards damaged by an accident, age or environmental conditions – and not repaired.
- Wrongly sized or spaced bollards.
- Too many bollards have been used and are obstructive, eg on a footpath or on or near a kerb ramp.
- Bollards are not clearly visible, particularly in poorer light conditions and by drivers.

How can you deal with common problems?

Do you really need bollards? If you do, what type of bollard should you use? If you use bollards, the following measures may solve any problems that your site may have:

Re-space bollards: Bollards can prevent vehicles getting into pedestrian areas and provide protection for pedestrians. If bollards are too widely spaced, so that vehicles can enter pedestrian areas, they will need to be re-spaced.



Photo Jackie Stevens

Replace fixed bollards with rising or removable bollards:

Bollards often only need to be temporary or used for only part of the day, or they may need to be removed to allow access to authorised vehicles. Removable or rising bollards are more expensive than fixed bollards but they may be more useful on some sites.

Remove unnecessary bollards: Remove unnecessary bollards to prevent dangerous and conflicting pedestrian and traffic movement.

Use reflective bollards: Make sure bollards are visible in all conditions and by all site users. Reflective bollards and those with lights are more easily seen.

Use other supporting measures: Bollards are not as effective as full barriers at keeping pedestrians away from vehicle routes. You might need to use bollards with other measures such as kerbs or markings and signs. These can reinforce the protection, segregation or channelling that the bollards are designed to give.

Checklist

- Re-space bollards so that they can restrict access to an area.
- Consider replacing fixed bollards with rising, removable or retractable ones.
- Remove unnecessary bollards because they can get in the way.
- Use reflective bands on bollards or provide illuminated bollards.
- Use other supporting measures such as signs and markings.

Checking your site

Carry out a visual inspection of your site to look for problems with bollards. Walk around the premises, make notes and take photographs of any problems. In particular, identify where bollards have been damaged, where there are too many bollards and where there aren't any bollards but should be. Mark the problem areas on a site plan.

Think about why there are bollards on your site and whether they are actually needed. This will help you to identify any problems. As you are looking round, consider:

- Are the bollards clearly visible to pedestrians and drivers?
- Are there any areas where bollards need to be put in?
- Are any sets of bollards incorrectly spaced?
- Are the bollards on your site effective?
- Are you using the correct type of bollard?
- Are the bollards being hit?
- Are other complimentary measures such as road markings and signs needed?

If you can, check for records of vehicles entering areas they shouldn't or where conflicting pedestrian or traffic movements have occurred. This will highlight areas where bollards are problematic and are not fulfilling their purpose. Ask for staff feedback about the effectiveness and suitability of the bollards used on site.

If there are conflicting pedestrian and/or vehicle movements, consider commissioning a traffic and pedestrian flow survey. This will identify the areas on site where there are problems with existing bollards or where bollards may be needed. The survey results will also help you identify other problems such as segregation, signing and road markings.

Checklist

- Complete a visual survey of all bollards on your site.
 - Are bollards needed?
 - What is their purpose?
 - Why were they originally put in?
 - Do they pose any health and safety risks?
- Pay for a professional inspection or survey if you feel you cannot do this properly yourself.
- Ask staff whether the bollards on site are helpful or cause problems.
- Consider commissioning a traffic and pedestrian flow survey to identify any problems with existing bollards or areas where bollards may be needed.

Where to get help

If there are problems with bollards on your site, you may be able to deal with them yourself. If you are unsure you should seek the advice of your health and safety workplace representative. If you need further advice you can contact HSE.

Good advice can be gained by speaking to other similar

businesses in your area about approved highway contractors. If you do this consider looking for examples of best practice. You may also be able to get details of who can carry out the works from your local trade association or Chamber of Commerce. Listings of highway contractors can be found in the *Yellow Pages*.

A highways contractor will be able to carry out any alterations to existing bollards or install new bollards.

Checklist

- Will it be more cost effective to have a professional assess your site and carry out any works, eg install reflective bollards?
- Speak to other site managers about how they have made good use of bollards.
- Seek advice from the local Chamber of Commerce.
- Speak to your health and safety representative and talk to your staff.
- If you need further advice, contact HSE.

What might it cost?

- Concrete bollard – around £200.
- Cast iron bollard – around £250.
- Rising bollard – around £1000. However, to fully install a rising bollard with a help point, CCTV camera and traffic light will cost around £12 000.
- Illuminated bollard – around £400. Bollards with reflective disks or bands are likely to be about £300.
- A professional site inspection or survey to assess the use and effectiveness of bollards on site is likely to cost around £2000.

(These costs are a guide and may vary significantly for individual sites and circumstances.)

Find out more

Site inspection: Workplace transport checklist HSE
www.hse.gov.uk/workplacetransport

Workplace transport safety: An overview Leaflet
 INDG199(rev1) HSE Books 2005 (single copy free or priced packs of 5 ISBN 978 0 7176 2821 6)
www.hse.gov.uk/pubns/indg199.pdf

Designing for deliveries Freight Transport Association 1998
 ISBN 978 0 902991 66 8

BS 6180:1999 *Barriers in and about buildings. Code of practice* British Standards Institution

BS 873-1:1983 *Road traffic signs and internally illuminated bollards. Methods of test* British Standards Institution

Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

British Standards can be obtained in PDF or hard copy formats from BSI: <http://shop.bsigroup.com> or by contacting BSI Customer Services for hard copies only
 Tel: 020 8996 9001 email: cservices@bsigroup.com.

This document contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

This document is available at:
www.hse.gov.uk/pubns/wpt08.pdf.

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