



States of Guernsey  
Traffic and Highway Services

# Safety at Street Works and Road Works

A Code of Practice

January 2018

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### Purpose of this Code of Practice

This Code of Practice (referred to from here on as the Code) is based on the UK Department of Transport “**Red Book**” and has been edited to take into account local conditions and legislation in respect of works taking place on or adjacent to the public highway in the Island.

It is intended to help you to carry out safely signing, lighting and guarding of street works and road works on all highways and roads in the Island. This Code is directed at **operatives, supervisors, managers, planners and designers** who are responsible for making sure that all street and road works are safe for both operatives and the public. Road users including pedestrians, cyclists and equestrians (horse riders) should not be put at risk, and should be able to see the extent and nature of any obstruction well before they reach it.

You must pay particular attention to the needs of **disabled people** and should consider other **vulnerable groups** such as elderly people, children and those with push chairs. This Code will help you to do this.

At the outset, this guidance booklet defines road work activities into two categories:

- **Within the barriers** which denote the confines of the work activity. Here the contract will involve trenching, shoring, identification of cable, safe systems of work, personal protective equipment, safe plant and equipment, trained and competent workforce, and so on. The work will be undertaken within the Working Space. This booklet does not cover this aspect of road safety. Method statements, safety policies and the Approved Code of Practice for the construction industry already deal with these safety matters and set appropriate standards and guidelines for safe working.
- **Outside the barriers** denoting the confines of the work activity. To ensure safe working conditions this will involve pre-planning, permission of the authorities, appropriate signage, traffic flow measures, suitable cones and barriers, and such like. This new booklet considers the safety of road workers as well as walking and cycling members of the public, private house and commercial premises, vehicle movement... the safer interface between the contract road works and the road and pavement user. This booklet comprehensively covers these aspects of road work activity.

The purpose and aim of the guidance in this booklet is to **reduce the risk to those working on Guernsey’s roads and those who use the Island’s roads, pavements and car parks**. The information contained herein is intended to provide a level and uniform standard so that the aims associated with revising this booklet can be achieved. The illustrations show typical layouts and general guidelines, which must be interpreted by a competent operative to conform to mandatory requirements in the text. The diagrams are not drawn to scale.

Where the word ‘should’ is used in the text, the information is intended as guidance as to best and safest practice. For example: “The appropriate signage should be positioned at either end of the road works taking into account the speed limit....” The point at which road signs are positioned in advance of road works is not governed by the law. The recommendations relating to distances contained in this booklet are for the guidance of all involved in road work activities.

Where the tense “must” is used in the text, there is a legal requirement to provide the standards referred to in the text. For example, “The contractor must ensure that the public are not able to stray or fall into the site of the work activity. Throughout this document, the term “service provider” refers to the person or company for whom works in the road are being carried out. Thus a “service provider” may be a utility (eg Guernsey Water or Guernsey Electricity), a private individual or a private contractor (eg a plumber, carpenter or tree surgeon) either working on the road or adjacent to the road.

**Special events:** Traffic and Highway Services (THS) is responsible for considering traffic control and pedestrian movement at various Island events, for instance Harbour Carnivals, Agricultural Shows, Motorsport Events and Liberation Day. THS is also responsible for traffic management for weddings, funerals, fetes etc. Some of the guidance contained in this document relating to signage may be used as best practice.

The term traffic in this guidance refers to all vehicular and pedestrian movements. The term ‘highway’ means road and footpaths.

The guidance in this booklet is intended to be used by all involved in road work activities, but is aimed at operatives, foremen and supervisors. It is important to consider the safety of all those who work on the roads and the public, in particular the needs of disabled people, children, the elderly and people with prams or pushchairs.

**Warning:** Failure to comply with this Code is evidence of failing to fulfil the legal requirements to sign, light and guard works. Compliance with the Code will be taken as compliance with the legal requirements to which it relates.

**Further guidance:** Further guidance on safe working on highways, including for some situations not covered by this Code, is available by contacting Traffic and Highway Services on Tel: 243400 or by email at [traffic@gov.gg](mailto:traffic@gov.gg)

## Application of the Code

This Code applies to all roads within Guernsey. This Code applies to works carried out by or on behalf of both Traffic and Highway Services as well as utility providers, or their contractors.

Further information on **Roadwork Co-ordination policies** and **application forms** can be located at [www.gov.gg/roadworks](http://www.gov.gg/roadworks).

### Utility Applications

Any applications for roadwork projects involving water, gas, electric, telecommunication, drainage or roads must be made by the utility company or States Service concerned through the Island Roadworks Information System (IRIS).

### All other applications

Applications for other reasons such as for tree felling, removals, scaffolding etc. must be made in on the application form available for download at [www.gov.gg/roadworks](http://www.gov.gg/roadworks). These can be posted, faxed, emailed or brought into Traffic and Highway Service's offices.

### Notification Periods for road closures

Applications for road closures on **major roads** (the Inter-Harbour Route, Traffic Priority Routes and Local Circulation Routes – see appendix 2) must be received by Traffic and Highway Services a minimum of **4 weeks** prior to the start of the closure.

Applications for road closures on **minor roads** (Neighbourhood Roads – see Appendix 2) must be received by Traffic and Highway Services a minimum of **2 weeks** prior to the start of the closure.

Application for all other types of traffic management can be found at [www.gov.gg/roadworks](http://www.gov.gg/roadworks).

### Road Categories

A map and a full list of the roads under each category of the Island's Road Hierarchy is included within the Roadworks Co-ordination policies. An overview map is provided as Appendix 2.

### Consultation

Traffic and Highways are responsible for consulting with the Parish Constables and other key stakeholders.

### Consideration of applications

All applications are considered against the Roadworks Co-ordination policies. Traffic and Highway Services will advise all applicants in writing of the decision it has made on each application.

In planning terms, it is important that road works are undertaken to minimise the effect on tourists, schools, entry or exit from St Peter Port or St Sampson's at peak times etc. It is also essential to try to arrange joint closures to minimise the effects of works. Where reasonably practical, all services to a site should be installed during one roadwork period only. Any application received for a service to be installed to a site when a period of closure/traffic management measure has been granted within the preceding months for another service to be installed, is likely to be refused. It is the responsibility of the developer to ensure that all services are coordinated during the one period.

## Other considerations

### Health and Safety at Work

Everyone on site has a personal responsibility to behave safely. Under The Health and Safety at Work (General) (Guernsey) Ordinance, 1987, employers have duties to protect their employees from dangers to their health and safety and to protect others who might be affected by the work activity (for example pedestrians, cyclists, equestrians and motorists). These include proper arrangements for design (including planning and risk assessment) and management (including supervision) of the works. Works promoters also have a duty to have regard for the needs of disabled people and older people in the planning and execution of works.

### Land Owners Permission

Before any excavation or work is undertaken, the utility, contractor, or agent must ensure that the landowner and / or relevant the States of Guernsey body has been contacted and has approved the work being undertaken.

### Scaffolding Permits

Scaffolding erected on or over the public highway or pedestrian walkways require TWO permits:

1. *Health and Safety Executive (HSE)*

All scaffolds erected on or over the public highway or pedestrian walkway require a permit from HSE under the terms of the Public Highways Ordinance, 1967.

Further information can be found at: <https://www.gov.gg/healthandsafety>

2. *Traffic and Highway Services (THS)*

Permission must be sought from THS in respect of scaffolding which is going to be placed on or over either the footpath or carriageway.

Depending on the type and design of scaffolding being erected, it may be necessary for the scaffolding company to apply for an obstruction / closure of the footpath and / or carriageway during erection and striking of the scaffolding and in some cases for the duration that the scaffolding is in place.

In all cases, scaffolding companies are subject to the same requirements to sign and barrier the scaffold site as any contractor undertaking works on the highway.

## Key questions for safer road works

In order to make sure your works are safe, please ask yourself these important questions:

*“Will someone using the road or footpath from any direction understand exactly what is happening and what is expected of them?”*

*“Have I made the site safe to work in and for the general public?”*

*“Have I got all the necessary permissions in place to undertake works on the public highway?”*

## Part 1 – Basic principles: Using this Code

Everyone on site has personal responsibility to behave safely. This includes proper arrangements for design (including planning and risk assessment) and management (including supervision) of the works. Works promoters also have a duty to have regard for the needs of disabled people and older people in the planning and execution of works.

This Code shows the principles you must follow when signing, lighting and guarding works on all highways. The highway includes the carriageway, footpath and verge.

This Code shows typical layouts, equipment and working methods. It does not include every situation you could encounter and it might be necessary for your **supervisor, manager or other competent person** to consult Traffic and Highway Services to discuss safe methods of working that have minimum impact upon road users. You must read the text alongside the illustrations to understand the requirements fully.

Each section within this Code will give you the requirements for each stage of the works from planning through to completion. Following a risk assessment, additional measures may be necessary for site specific conditions.

Further guidance on traffic safety measures and signs for road works and temporary situations is given in Chapter 8 of the UK Traffic Signs Manual. Always consult your **supervisor, manager or other competent person** if you are in any doubt about correct procedures or if you are concerned about safety.

### Responsibilities

It is your responsibility to:

- ensure that the correct procedures have been followed for works that involve the need for prior consultation, consent or agreement (e.g. highway closures, obstructions, or any other form of traffic management)
- ensure that before you start that a site specific risk assessment has been carried out, paying particular attention to the requirements of highway users, including pedestrians and vulnerable users such as disabled people. If circumstances change, you should consider whether the risk assessment needs revising;
- ensure that before you start that the works site layout has been planned, necessary equipment has been identified and that you know how you will set the site out;
- understand and implement pre-planned site safety requirements before starting the works;
- sign, light, guard and maintain your works safely at all times;
- ensure that your works remain compliant and safe as works progress or following any alteration;
- ensure that the safety of yourself and others who pass near or through the works;
- consult your **supervisor, manager or other competent person** immediately if you are unsure about any requirements contained in your work instruction;

and

- ensure that the work team understands all key safety issues and the local site risk assessment related to the activity.

**Warning:** Always consult your **supervisor, manager or other competent person** if you are in any doubt about compliance with this Code or if you are concerned about safety.

## **Training and competence**

Only operatives, supervisors, managers or other competent persons that have been trained appropriately and are competent should be engaged in the assessment, design, setting up, maintaining and removing of signing, lighting, guarding and temporary traffic control.

Anyone placing portable traffic signals on a public highway must have a full understanding of the requirements and correct operation of the signals.

For the sake of clarity, this code refers to operatives placing and using approved signage for the purpose of traffic management. It is not permissible for operatives to use hand signalled instructions to road users as a substitute for recognised and approved signage.

## **Planning**

Works should cause minimum inconvenience to road users. Traffic and Highway Services have a duty to co-ordinate all works in the streets for which they are responsible.

The site location, nature of the works and their duration will determine the traffic control layout that will be required. For planned works, a competent person should visit the site in advance and carry out a risk assessment to determine the appropriate traffic management layout so that the correct equipment can be arranged.

Liaison with Traffic and Highway Services and other authorities or statutory bodies may be required in planning the works to obtain any necessary licences, approvals and temporary traffic regulation orders/notices in advance of the works commencing.

For emergency works, as much warning must be given to road users as is reasonably practical and full signing, lighting and guarding must be provided as quickly as possible.

## **Risk assessment**

While this Code provides guidance on the requirements for signing, lighting and guarding your site, it cannot cover every situation and a site specific risk assessment should be undertaken for all works sites. Where a risk assessment identifies that measures are needed in addition to those required by this Code, these must be implemented.

## Part 2 – Operations

### Before going to site

#### Works instructions

When you receive a work instruction, look for the information relating to the proposed type of work as well as the road conditions, such as:

- the type and classification of the road;
- the road width;
- the size and shape of the site;
- approaches to the site and visibility for traffic;
- the volume and type of traffic (including pedestrian and cyclist activity); and
- the speed limit.

From this information, you will be able to decide what signs and equipment you will need to guard the works, together with any specific traffic control equipment (e.g. Stop/Go boards, portable traffic signals, etc.).

#### Equipment

Check that you have all of the equipment you need to safely sign, light, and guard your site.

High visibility jackets must be worn when you are operating outside the working space, e.g. setting out, maintaining or removing signing, lighting, guarding and temporary traffic control. Your employer may also require you to wear high visibility clothing to the same standard within the working space. High visibility clothing must be correctly fastened and must be maintained in a clean and usable condition.

Further guidance on equipment, and technical standards for high visibility jackets, are given in Part 3 of this Code.

### At the work site

#### Before you start

All works require measures to ensure the safety of road users (including pedestrians) and operatives.

One of the first things you need to decide for any job or work site is whether the standards for signing, lighting and guarding given in this Code will be sufficient for this purpose, or whether you are going to need to take extra precautions. (The layouts shown in this Code are likely to be suitable in most cases but they will not be adequate for every situation that you come across).

Remember that this Code deals specifically with signing, lighting and guarding. You will need to consider separately any risks associated with carrying out the works themselves.

For planned works, a competent person should visit the site in advance, carry out a risk

assessment based on the road layout and nature of the works to be undertaken, and give clear instructions on the signing, lighting and guarding layout required.

Additionally before you start, you will need to look at the job, review existing risk assessments, and make your own assessment of on-site risks. If you have any doubts whether the instructions you have been given or the arrangements set out in this Code are sufficient to keep road users and operatives safe, do not start until you have discussed these with your **supervisor, manager, or other competent person**.

**Warning:** To comply with health and safety legislation you must carry out and regularly review the site specific risk assessment to ensure that a safe system of working in respect of signing, lighting and guarding is in place and maintained at all times.

These are some of the issues you should consider when you are assessing on-site risks before starting:

### Look at the road

- Are there awkward or complex junctions?
- Are the road or footpath widths too narrow to allow the safe use of the standard layouts?
- How much visibility do approaching road users have? – consider bends, crests of hills, trees and bushes, and parked vehicles.
- Are there any overhead cables?
- Are there any other works going on, or other traffic management measures in place, nearby?
- Are your works near permanent traffic signals, filter junctions, or signs? If so, could they obstruct above-ground or sub-surface detectors, signal heads or signs? Contact Traffic and Highway Services if this is a possibility.

### Look at the traffic

- Is the intended type of traffic control appropriate for the prevailing traffic flow? – What about the number of heavy or large vehicles passing?
- What is the speed limit, and does a significant amount of traffic appear to be travelling faster than the speed limit?
- What is the type or make up of the traffic? – E.g. cars, heavy or large vehicles?
- Is there a cycle lane? Are there many cyclists using the route?
- Will bus routes or bus stops be affected?

### Look at the local area

- Are there likely to be frequent deliveries to shops or premises? – Delivery vehicles may park in a way that blocks signs etc. or reduces road width.
- Will the works restrict access to premises that have a lot of traffic entering or leaving? E.g. schools, large stores, car parks, fast-food stores – particularly consider right turning traffic.
- What are the needs of the emergency services? – E.g. Are the works nearby the police, ambulance, or fire station or on a route that they would often use?
- Are there facilities for disabled people, e.g. parking bays, and can these be avoided?

### Look at pedestrians

- Consider both safe routes and the standards of fencing/barriers needed to protect pedestrians from risks from inside the work space.
- Is there a high level of pedestrian traffic? – consider users of pushchairs, wheelchairs and mobility scooters.
- Are there significant numbers of people with reduced mobility or walking difficulties (who may have problems with steps, cable protectors, or uneven surfaces), or blind and partially sighted people? - consider any nearby hospitals, surgeries, residential homes etc.
- Are there many children around? – consider nearby schools, parks, playgrounds etc.
- Will pedestrian crossings or school crossing points be affected?
- Are there other pedestrian risks, such as people leaving pubs/clubs, sports matches or events?

### Look at what might change

Estimate how long the works may be in place, then think about how any of the above issues might change within that time, for example:

- rush-hour traffic flows;
- school run parking;
- pub/club licensing hours;
- public events at sports grounds;
- one-off events, concerts etc.;
- street lighting levels;
- weather and surface conditions; and
- deliveries to the site.

### Remember...

- Use the signing, lighting and guarding that is necessary for the risks, not just the equipment you happen to have available at the time. Work must not start until you have the right equipment set up correctly. For emergency works, full signing, lighting and guarding must be provided before works commence.
- Ensure the works team are given a formal briefing on all key safety issues and local site risk assessment related to the activity.
- If you have any concerns, contact your **supervisor, manager or other competent person**.

## Arriving on site

### *Parking*

On arrival, you must park your vehicle safely before you unload or set up signs. If you cannot park off the road, make sure the vehicle can be seen clearly by other drivers. Turn on your roof-mounted amber beacon(s), if you have them. Do not obstruct a footpath or cycle route when parking off the road, and respect access to premises and driveways. If parking your vehicle outside the working space, you must ensure that it does not obstruct any traffic sign or traffic signal head. If a vehicle is part of, or enters, the works site, it must be correctly incorporated into the traffic management used. Roof-mounted beacon(s) must be switched on if the vehicle carries them.

The technical standards for vehicles are given in [Part 3](#) of this Code.

### *Vehicle movements*

Works drivers intending to stop at the roadside or enter established works should follow normal Highway Code practice and must switch on their roof-mounted amber beacon(s), if they have them. Vehicles requiring the use or fitment of an amber beacon must have the appropriate permit from Traffic and Highways Services.

## Advance signing

### *Signing of the works*

It is important that the distances, including safety zone dimensions are determined before starting to set the signs out. From the table in [Appendix 1](#) select the size and distance for the advance signs. The basic site layout for works on a single carriageway road with a works vehicle present is shown on page 20. If there is limited visibility on the approach to the proposed works site, e.g. on a bend, on a dip in the road, or on the brow of a hill, you must provide extra advance signs. These extra signs will need to be placed first.

Where there is a grass verge the signs should normally be placed there. Placing signs in the footpath is permitted, but they must be positioned to minimise inconvenience or hazard to pedestrians, with particular consideration given to those with visual impairments, pushchairs, wheelchairs and mobility scooters. A minimum usable footpath width of 1.2 metres should be maintained where possible. See page 23 for details.

The lower edge of all signs should be no less than 300 mm from ground level, and care should be taken that signs are level, particularly if the ground is uneven.

**Warning:** In no circumstances must the footpath width be reduced below 1.0 metre. Where the minimum footpath width of 1.0 m cannot be maintained, you must consult your **supervisor, manager or other competent person**.

**Caution:** Consult your **supervisor, manager or other competent person** if the works are going to make it impossible for drivers to comply with a permanent traffic sign. Such signs might need to be covered or relocated; Traffic and Highway Services must be consulted before this is done.



**Road works ahead** – the first sign to be seen by approaching traffic. Its size, the minimum distance from the start of the lead-in taper, and clear visibility distance will vary according to the type of road and its speed limit – see table in [Appendix 1](#). The range of distances is given to allow the sign to be placed in the most convenient position, bearing in mind the available space and visibility for drivers. Do not simply choose the minimum distance – assess each site carefully.



**Road narrows ahead** – sign warns the driver which side of the carriageway is obstructed. Place it between the ‘Road works ahead’ sign and the beginning of the lead-in taper. Make sure that the correct sign (i.e. narrows on left or right) is used. Refer to page 42 for further information.

**Traffic control warning signs** – include advance signing for any traffic control systems in use.



**Directional arrow** – place ‘Keep right’ or ‘Keep left’ signs as appropriate at the beginning and end of the lead-in taper of cones. These signs must be the same size as the ‘Road works ahead’ sign. Make sure that the signs point in the correct direction.

**Warning:** Do not place ‘Keep left’ or ‘Keep right’ sign frames on their sides to make them point in the correct direction, as this could cause a hazard to road and footpath users, and may cause confusion. These signs must not be used for directing pedestrians.

Advance signs should be placed so that they:

- are in the correct sequence;
- are within the correct distances as shown in [Appendix 1](#);
- can be clearly seen
- cause minimum inconvenience to road and footpath users;
- are at a minimum risk of being struck by vehicles; and
- cannot be obscured by parked vehicles.

### ***Fixing of signing, lighting and guarding***

Signing, lighting and guarding equipment must be fixed to prevent it being blown over or out of position by wind or passing vehicles. The use of equipment with built-in weights (sand or water) is recommended. Alternatively, you may add appropriate weights e.g. sacks containing suitable granular material placed at low level.

**Warning:** Do not use barrels, kerbstones, spoil, road pins or similar objects for the purpose of weighting or securing road signs and barriers – they could create a danger for highway users if struck by a vehicle.

***Additional requirements***

Sometimes you might have to duplicate the warning signs on both sides of the road. An example of this would be where signs on the left-hand side become obscured by heavy traffic. On dual carriageway roads, the warning signs may need to be duplicated in the central reservation – consult your **supervisor, manager or other competent person**.

**Warning:** You should only cross a live carriageway on foot when traffic flows are low enough to produce regular, sufficient gaps between vehicles to allow time to cross safely. For dual carriageways, the need to place signs in the central reservation must be assessed before you proceed and you should consult your **supervisor, manager or other competent person**.

The road width and volume of traffic at the works site might make traffic control necessary. See page 54 for details of which type of control is appropriate. Signs should be set out for traffic approaching from all directions.

Before any works equipment is placed in the carriageway, advance signing must be provided. (For exceptions associated with works between parked vehicles, see page 30).

If you place a pedestrian walkway in the carriageway, or create obstructions such as spoil or plant outside the working space, sign, light and guard them separately, and to the same standard.

## Coned area

### *Cones and warning lights*

For the minimum size of cones and their placement in lead-in tapers, exit tapers, and safety zones, refer to the table in [Appendix 1](#). The retro reflective sleeves of cones must be kept clean. Damaged cones/sleeves must not be used.

All street and road works must have warning lights (formerly known as road danger lamps) illuminated in poor visibility or during the hours of darkness. Steady or flashing warning lights can be used on all lit or unlit roads. See table on page 67.

### *Lead-in taper*

The recommended lead-in taper is given in the table in [Appendix 1](#). Sometimes it might not be practicable to provide the full taper. If this happens, shorter lengths of taper may be used. Reduced tapers should always be as long as permitted under the circumstances. However, they must not be reduced to less than 45° unless there are restrictions associated with parked vehicles.

**Caution:** Where reduced taper lengths are used, the siting distance (D) of the first sign in advance of the taper must be no less than 20 metres.

### *Traffic barrier*

When a traffic lane is closed for fixed (i.e. not short duration or mobile) works to take place, a traffic barrier with a retro-reflective red and white barrier sign should be placed across the lane as shown in the layout diagrams.



### *Site layout*

You must include the works area, working space and safety zone in the area to be marked off with cones, and/or barriers. Warning lights should be placed where necessary (see page 58).

You must provide safety zones when either:

- operatives are present; or
- a pedestrian walkway is located in the carriageway.

### *Working space*

The working space includes the works area (e.g. the excavation or chamber opening) and the space around the works area where it is permitted to store tools, excavated material, equipment and plant. You must leave enough working space to ensure that movement and operation of plant (e.g. swinging of buckets or counterweights) is clear of passing traffic and does not encroach into the safety zone or any adjacent footpath, walkway or cycle route. Where materials or welfare facilities cannot be accommodated within the site, the location and arrangement of the storage area must be agreed with Traffic and Highway Services.

### **Safety zone**

The safety zone is provided to protect you from traffic and to protect the traffic from you.

When working in a footpath, remember you must provide a safety zone in the carriageway if the working space is closer to the edge of the carriageway than the width of the sideways clearance (S). If cones are placed in the road, advance signing will be required.

These same principles apply when working in a verge or cycle track adjacent to the carriageway.

**Warning:** Do not enter the safety zone in the normal course of work. Materials, equipment and vehicles must not be placed in this zone. You should only enter the safety zone to maintain cones, barriers and other road signs.

The basic safety zone including a works vehicle, (see page 17) is made up of:

- a lead-in taper of cones whose length (T) generally varies with the speed limit and the width of the works (although a 45° lead-in taper is used for shuttle working and short duration stops);
- the sideways clearance (S), which is the width between the working space (or in some cases, the pedestrian walkway) and moving traffic; and
- the exit taper.

See inside [Appendix 1](#) on page 67 for dimensions T, L, C and S.

Sideways clearance (S) depends on the speed limit in force, although you should consider as part of your risk assessment if a greater width than stated in the table would be appropriate, especially on roads with a 35 speed limit. If traffic consistently exceeds the speed limit, this should also be taken into consideration when reviewing the width of the safety zone. This may result in a restricted width available to traffic, and could cause particular problems for drivers of large vehicles at junctions and bends. If so, you might need to consider other traffic management options. See page 42 regarding unobstructed widths.

At times when no operatives or hazards within the site (e.g. open excavation, plant, materials or spoil heap) are present, and no pedestrian walkway is provided in the carriageway, the overall size of the layout can be temporarily reduced to make less of an obstruction to traffic. Dimensions of the long ways clearance (L) and sideways clearance (S) can be reduced (or these spaces omitted altogether) and the length of taper (T) adjusted to match the reduced width. L, S and T must be restored to the appropriate dimensions when work restarts.

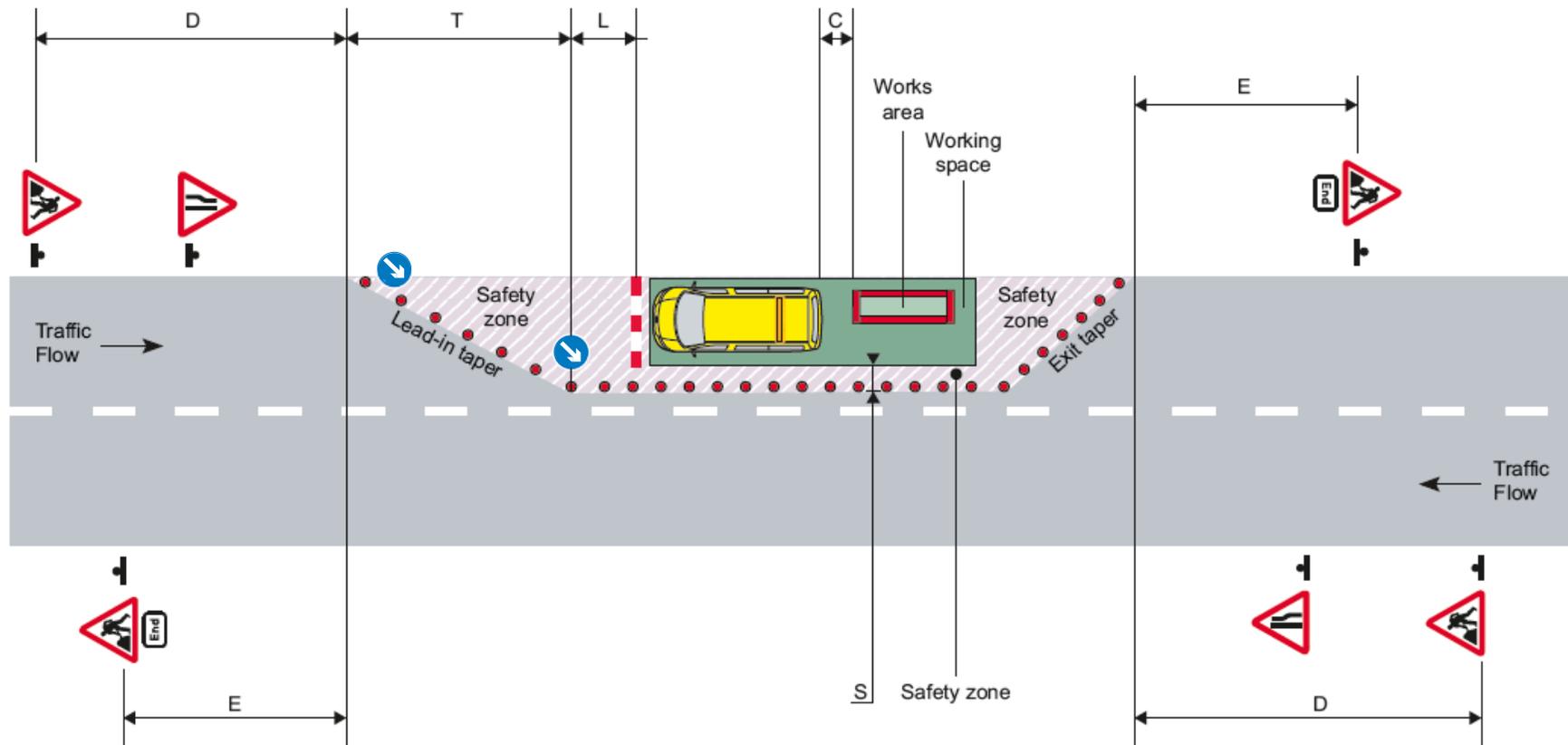
Where the coned off area is simply protecting a hazard, it may be possible to temporarily reduce the size of the working space. In this case, however, dimensions L, S and T will still be required, even though no works are taking place.

**Warning:** Where the width of the usable carriageway does not permit the necessary sideways clearance to be maintained and a full road closure is not practicable, a safe method of work must be agreed before starting work. Such agreement must be between the works promoter and the appropriate Traffic and Highway Services.

***Exit taper***

An exit taper is normally required and should be at 45° to the kerb line or road edge. However, for works on a dual carriageway where a works vehicle exit is needed, the exit taper may be omitted as long as the end of the works is properly signed.

*Basic layout with a works vehicle*



**Notes**

1. Ensure road width allows for two-way traffic flow. See page 42 for further information.

## Information board

An information board must be displayed at every street and road works site except mobile works, short duration works (less than 5 days in duration) and minor works that do not involve excavation. Information boards are still highly desirable at these sites where it is safe and practicable to provide them. This board should be placed so that it does not obstruct footpaths or carriageways but can be clearly read by pedestrians, and any drivers who have stopped close to the board.



The information board must give the name of the organisation undertaking the works, any principal contractor and an emergency contact telephone number. Wherever practical, it should also contain other information that will be helpful in explaining to the public why the work is being done, how long it will take and a message apologising for inconvenience.

For mobile and works of a short duration that do not involve excavation or advance signing, information may be displayed on works vehicles, so long as it does not cause a distraction to drivers.

## End sign

An end sign, consisting of a 'Road works ahead' sign in conjunction with a supplementary 'End' plate, indicates the end of works and the end of any temporary restrictions. You must place an end sign (in both directions) beyond works that are 50 metres or more in length (measured between the end of the lead-in taper and the beginning of the exit taper, i.e. excluding the length of the tapers). If there is a series of two or more sites close together, an end sign should only be placed after the last of these sites (in both directions), i.e. end signs should not be placed between closely spaced sites. The use of an end sign is optional for works less than 50 m in length unless there are two or more such sites close together.



End signs are not necessary at works on neighbourhood routes (see Appendix 2) that do not carry a significant volume of through traffic or many large vehicles.

If the permanent speed limit changes within a length of road covered by a temporary speed restriction:

- the sign indicating the change in permanent speed limit (and any other permanent speed limit signs) should be covered up; and
- at the end of the temporary speed restriction, in addition to the end sign, signs must be provided on both sides of the carriageway to indicate the permanent speed limit that applies from that point onwards.

## Setting out the works

### Sequence for setting out signs

You are at increased risk when setting out signing, lighting and guarding, so great care is needed to ensure that you can see the traffic and the traffic can see you. Put your high visibility clothing on before leaving the vehicle.

On arrival, or at any stop to set out signs, you must park your vehicle safely before you unload or set up signs, lights and barriers. Where possible the vehicle should be parked off the road in a position that does not obstruct a footpath or cycle route. If you cannot park off the road, the vehicle must be clearly visible to other road users. Turn on your roof-mounted amber beacon(s) if you have them, and aim to ensure that any high visibility markings on the vehicle are facing on-coming traffic. It will be safer to get out of the vehicle on the passenger side, rather than stepping into the traffic stream.

When setting out the works face oncoming traffic and take particular care when crossing the road to place signs. You must not be distracted by mobile phones (including hands-free phones), radios, or other devices during this operation.

Follow the sequence:

1. You must park your vehicle safely. You can park off the road in a position that does not obstruct a footpath or cycle route. If you park in the road, you must protect it from traffic going past. Set up a 'Keep right' sign at the outside corner of the vehicle, along with a traffic cone.
2. Set out the 'Road works ahead' sign. Measure or pace out the appropriate distance (D) from the point where your lead-in taper will begin. Then put one sign on the left-hand side (viewed from the perspective of traffic facing the sign) and another on the right-hand side of the road if your risk assessment deems it necessary. (Consult the table in [Appendix 1](#) of this Code for the appropriate distance D for different sites).
3. Using the appropriate diagrams in this Code to help you, work back towards the site, placing more signs as necessary. Keep on the verge or footpath if you can. If you are on a two-way road, repeat this procedure and place signs for traffic going in the opposite direction, then cone off the works.



4. Always face the oncoming traffic when you set out the cones for the lead-in taper. Start from the kerb or road edge, working out towards the works. Complete the setting out of cones around the works, leaving enough room for working space and safety zones.
5. Use cones, 'Keep right' signs, barriers and road warning lights, and an information board to complete the warning, guidance and protection for the works.



### **Sequence for the removal of signs**

When you need to remove the signs, reverse the procedure shown above, **EXCEPT** remove the 'End of road works' sign second to last and the 'Road works ahead' sign last.

### **Footpath works – look after pedestrians**

Where footpaths and pedestrian areas are affected by street works and road works, it is your responsibility to make sure that pedestrians passing the works are safe. This means protecting them from both the works and passing traffic.

You **must** take into account the needs of children, older people and disabled people, having particular regard for visually impaired people. In order to do this you must provide a suitable barrier system (see page 62) that safely separates pedestrians from hazards and provides a safe route suitable for people using wheelchairs, mobility scooters, prams or pushchairs. Always be on the lookout for pedestrians who seem confused or who are having difficulty negotiating a temporary route, and be prepared to offer assistance.

#### ***Safe routes for pedestrians***

If your work is going to obstruct a footpath or part of a footpath, you must provide a safe route for pedestrians that should include access to adjacent buildings, properties and public areas where necessary. This route must consider the needs of those with small children, pushchairs and those with reduced mobility, including visually impaired people and people using wheelchairs or mobility scooters.

You should always try to enable pedestrians to remain safely on the footpath if possible. Ideally, the footpath should be a minimum of 1.2 metres wide for temporary situations but if this cannot be achieved, the existing footpath can be reduced to an absolute minimum of 1 metre unobstructed\* width. Where the existing footpath is narrower than 1 metre, you are not required to provide an alternative footpath wider than the existing footpath, but you should consider whether this is possible.

If it is not possible to maintain safe pedestrian access on the footpath, consider whether there are other safe alternatives. This could mean, for example, closing the footpath and placing a 'Footpath closed' sign at the works and an advance 'Footpath closed ahead' sign at a location where it is safe for people to cross the road (possibly with the use of portable pedestrian crossing facilities). It may be necessary to provide footpath ramps on either side of the road at this location. Another alternative, at attended sites only, could be to preserve safe access for the majority of pedestrians and to offer assistance to those who might find a reduced width more difficult to navigate, including wheelchair or mobility scooter users, visually impaired people, or people with pushchairs.

If it is not possible to maintain safe pedestrian access on the footpath and a safe off-carriageway alternative cannot be found, you should provide a walkway in the carriageway. In general, a minimum 1.2 metre width of walkway should be provided (this allows for a visually impaired person being guided), with an absolute minimum of 1 metre unobstructed\* width. It is recommended that a wider walkway be provided if it can be done without resulting in a road closure or a reduction to shuttle working.

*\*It is not permitted for barrier feet or other equipment to obstruct this space.*

**Warning:** Where the minimum footpath width of 1 metre on the footpath cannot be maintained, **you must consult your supervisor, manager or other competent person.** Where a road closure or pedestrian lights are required, Traffic and Highway Services must be informed and appropriate orders or permissions obtained.

All pedestrian routes must be fit for purpose and able to be used safely by all pedestrians, including older people and disabled people. These routes should be properly drained and have adequate headroom. Surfaces should be reasonably smooth without steep gradients or cross falls. A suitable barrier should be placed between a pedestrian route and any adjacent drops or steep slopes.

Footpath boards may be used on footpaths to maintain a route for pedestrians and provide light vehicle access to premises during excavation works.

### ***Walkways in the carriageway***

You should provide a walkway in the carriageway only if it is not possible to maintain safe pedestrian access on the footpath and a safe off-carriageway alternative cannot be found. When temporary pedestrian routes have to be placed in the carriageway, make sure the signing and guarding barriers are put into position before the footpath is blocked. Make sure the sideways clearance (S) of the safety zone is on the traffic side of the barriers.

When pedestrians are diverted to temporary walkways in the carriageway, suitable ramps or raised footpath boards must be provided to enable people using wheelchairs or pushchairs to negotiate kerbs safely. The layout should allow wheelchair and scooter users to enter and exit a temporary walkway safely. Ramps and boards must be fit for purpose – see pages 98 to 99.

### ***Protecting pedestrians during works***

If the works are on or near a footpath, then there is a risk that pedestrians might enter the working space. This could happen if they trip and fall into the working space, because they make a mistake and take the wrong route, or because they deliberately enter the space.

The working space will often contain a number of hazards that could harm pedestrians. For example, pedestrians might trip over material, fall into excavations or be struck by moving or falling equipment. You must ensure that they are adequately protected against being exposed to these risks. You must also take into account the needs of children, elderly people and people with disabilities, having particular regard to visually impaired people.

At all static works, pedestrians must be protected by a continuous system of barriers.

Where a works site can be approached by pedestrians crossing from the opposite side of the road, you should place barriers all around the excavation, even when pedestrians are not diverted into the carriageway.

Most barriers are designed to be put up as part of a system. If not properly erected, they will not be sufficiently stable and could be blown or knocked over. You must follow the manufacturer's instructions when erecting barriers. If you are unable to install correctly the barriers available, you should contact your **supervisor, manager or other competent person** before starting work.

### **Whilst you are working at a site**

Whilst working on site, remember:

- keep checking that signs and barriers are still in place;
- make sure that materials or machinery do not go above or move into the pedestrian space;
- if you need to move barriers or signs to allow access to the works, replace them as soon as possible (whilst they are open you must have someone at the opening to prevent pedestrians from entering); and
- keep a lookout and if you see pedestrians entering the working space, stop all machinery movements immediately and escort the pedestrians back onto a safe route.

### **Unattended works**

If it is necessary to leave a site unattended, then remove as many hazards from the site as you can before leaving it. For example:

- remove or securely immobilise all plant and machinery;
- remove as much equipment and material as possible. Make sure any that is left on site is stored in a tidy manner and in such a way that it cannot fall, be knocked over or tampered with.

If an unattended site contains an open excavation within 2 metres of a temporary or permanent footpath, then you should consider either:

- putting temporary covers over the excavation (see page 63 Temporary covers over excavations); or
- providing an enhanced barrier around the excavation;

Unless a site-specific risk assessment shows that such additional protection is not justified.

### Short delays on footpaths

Sometimes works are required that temporarily restrict or prevent the free passage of pedestrians past the works (traffic-sensitive times are to be avoided whenever possible). Such activities include the collection and delivery of materials, and limited excavation or reinstatement activities. In some circumstances, it will not be possible to provide an alternative footpath because of restricted widths or other factors.



A temporary obstruction of the footpath is permissible if ALL the following apply:

- no alternative footpath is available or can be provided;
- the footpath is closed for no longer than absolutely necessary, and in any case no longer than 15 minutes in every full hour;
- sufficient operatives are available at all times to advise, assist and direct footpath users safely past the works;
- pedestrians requiring assistance need wait no longer than 5 minutes for help;
- all overhead operations are suspended when assisted pedestrians pass the works;
- temporary footpath closure signs are placed a recommended minimum of 20 metres in advance of the works; and
- Traffic and Highway Services has been notified and agrees with the use of this measure.

Special consideration must be given to disabled people (including wheelchair or mobility scooter users) and people with pushchairs or prams at all times.

**Warning:** This measure should only be used with the agreement of the Traffic and Highway Services and after consultation with your **supervisor, manager or other competent person** and an on-site risk assessment has been undertaken.

### Pedestrian crossings and pedestrianised areas

For works on or near a pedestrian crossing, see page 44 for advice. In pedestrianised areas the working space and vehicles, plant or materials, must be enclosed by pedestrian barriers.

### Temporary closure of a footpath

Where it is necessary to close a footpath, authority from Traffic and Highway Services will be required in a similar way to when a carriageway is closed. Pedestrian access to all properties and premises must be maintained at all times.

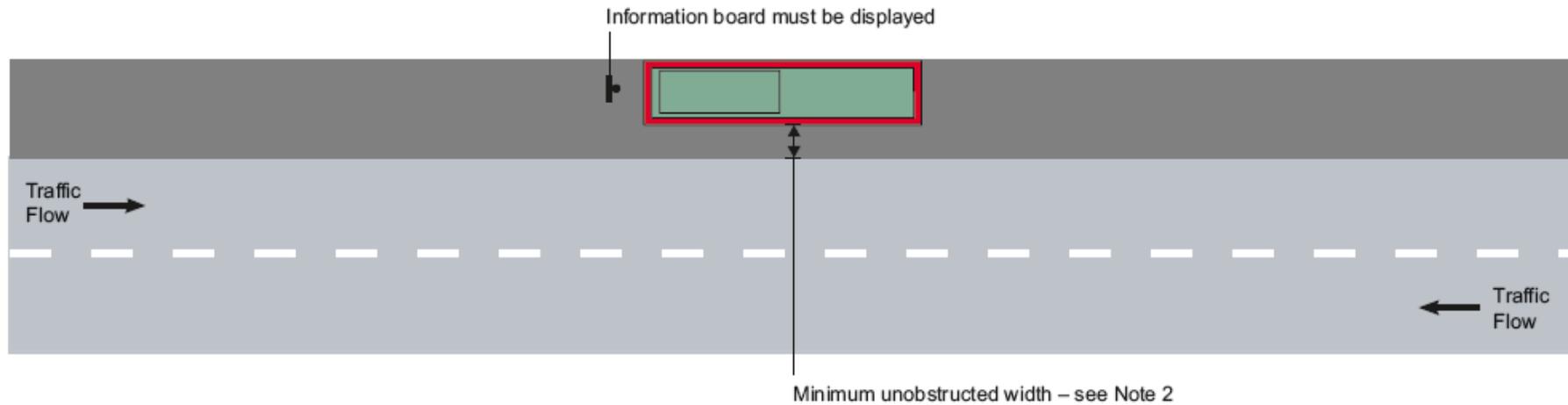
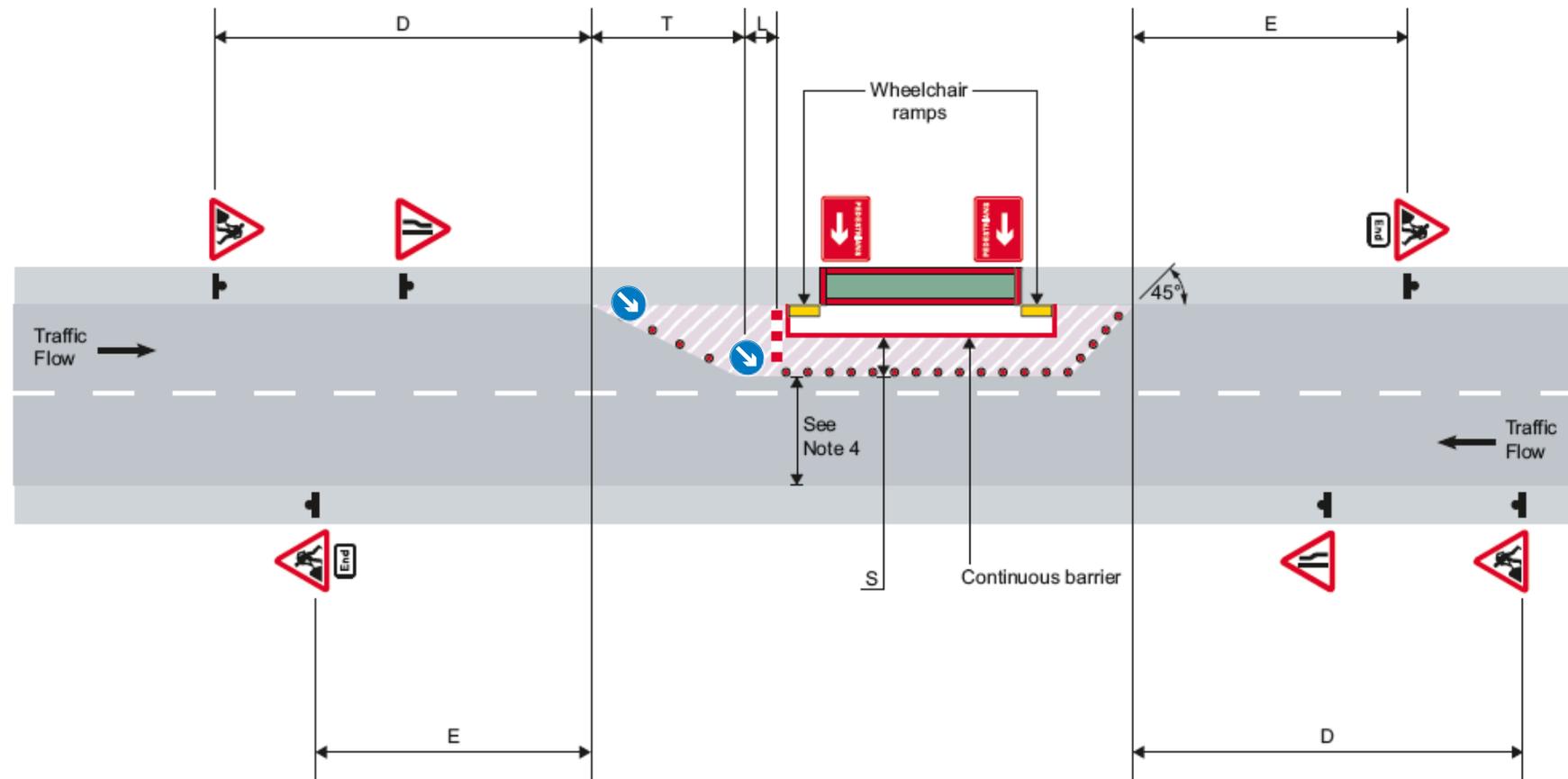
*Works entirely on the footpath*

Figure 2 - Works entirely on the footway

**Notes**

2. Advance signs are not required when the works, signing, lighting and guarding are entirely on the footpath.
3. 1.2 m preferred minimum unobstructed width, 1.0 m absolute minimum.

*Works on footpath with pedestrian diversion into carriageway***Notes**

1. For numbers and minimum size of cones, and dimensions D, T, L, S and E, see [Appendix 1](#).
2. Wheelchair ramps must be provided at the transition from footpath to carriageway.
3. See page 42 for guidance on unobstructed width past the works.
4. Additional pedestrian barriers may be provided parallel or at right angles to the kerb, as site conditions require, to guide pedestrians past the works.

## Cycle routes – look after cyclists

You must ensure suitable provisions are made for the safety of cyclists passing or crossing the works. Particular care is needed where cycle lanes or cycle tracks are affected by street works or road works because these routes may be especially popular with cyclists.



Cyclists might have to use other parts of the carriageway, a temporary cycle track, or an alternative route. You should consider whether access on the carriageway can be preserved for cyclists, even if it needs to be closed to motor vehicles. See page 54. Where the carriageway is closed but the footpath remains open, a ‘Cyclists dismount and use footpath’ white-on-red temporary sign can be used. Your **supervisor, manager or other competent person** may need to discuss these alternatives with Traffic and Highway Services.

When shuttle working with traffic control is needed, you need to refer to the table of unobstructed road widths past the works set out on page 42 in order to help prevent unsafe conditions for cyclists. When portable traffic signals are used, bear in mind when setting the timings that cyclists might take longer than motor vehicles to clear the controlled section.

Where a cycle lane is affected by planned works, your **supervisor, manager or other competent person** will need to discuss the situation with Traffic and Highway Services well before work starts because it may be necessary to obtain the appropriate consent to suspend the cycle lane. Consent is not required in advance for emergency works, but must be applied for retrospectively at the earliest opportunity after commencement.

## Equestrian routes – look after horse riders

If the route is used by horses, you must ensure suitable provisions are made to ensure the safety of people riding or leading horses past the works. Consideration should be given to suspending all operations when horses are passing the works.

Your **supervisor, manager or other competent person** will need to discuss the situation with the Traffic and Highway Services before work starts.

## Carriageway works

This Code gives guidance on typical layouts, equipment and working methods. It does not include every situation you might encounter, and it might be necessary to consult Traffic and Highway Services to discuss safe methods of working that have minimum impact upon road users. You must read the text alongside the illustrations in order to understand fully the requirements.

### Works on single carriageway roads

The basic layouts on pages 20, 35, 38 and 39 cover approach signing. Exceptions are permitted in the case of works undertaken between parked vehicles (see page 30).

### ***Parked vehicles***

On roads where vehicles are parked and are likely to be present for the duration of the works:

- works in the space between parked vehicles need no advance signing or lead-in or exit taper of cones, provided that the whole works, including the safety zone, does not extend beyond the line of vehicles;
- provision must be made for the possibility that parked vehicles might be moved. Should this happen, the site must, as far as is practicable, revert to the basic site layout with lead-in taper of cones;
- your pre-works and ongoing risk assessments need to reflect the conditions on the site, such as parking on one or both sides of the street, and possible changes to the parked vehicles at or near the site; and
- if you are working within designated parking spaces, the consent of Traffic and Highway Services will be required before carrying out the works.

All other signing (other than advance signing) and the necessary guarding are still required at sites with parked vehicles.

### ***Works vehicle***

If you want to park a works vehicle in front of the works area to give some physical protection or to work from it, keep a minimum distance (C) between the vehicle and the works of 2 metres.

This distance will provide some protection for operatives if the vehicle is struck by another vehicle.

**Warning:** When positioning a works vehicle in the carriageway to provide physical protection to contractors working in the carriageway, the steering wheel of the vehicle should be turned to lock the steering axle as far as possible, in order to minimise the vehicle 'skidding' in a straight line towards the contractors, in the event of a vehicle impact.

**Note:** When you are parking a conspicuous works vehicle in front of the working space, a traffic barrier will still be required, as shown on page 17. It must be placed in front of the vehicle, and replaced if the vehicle is removed.

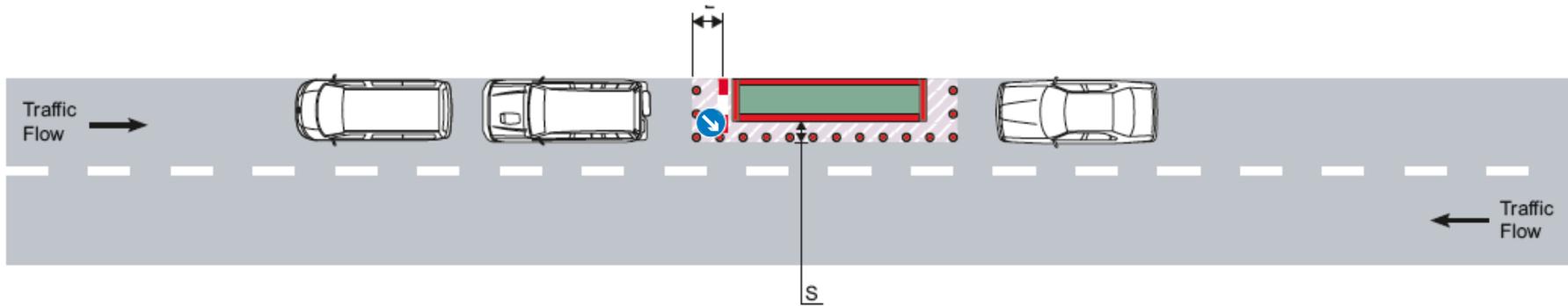
The longways clearance (L) is measured from the end of the lead-in taper to the traffic barrier. This is part of the safety zone, **not** part of the works area.

The existing speed limit or temporary speed limit approved by Traffic and Highway Services should be used to determine the appropriate clearances.

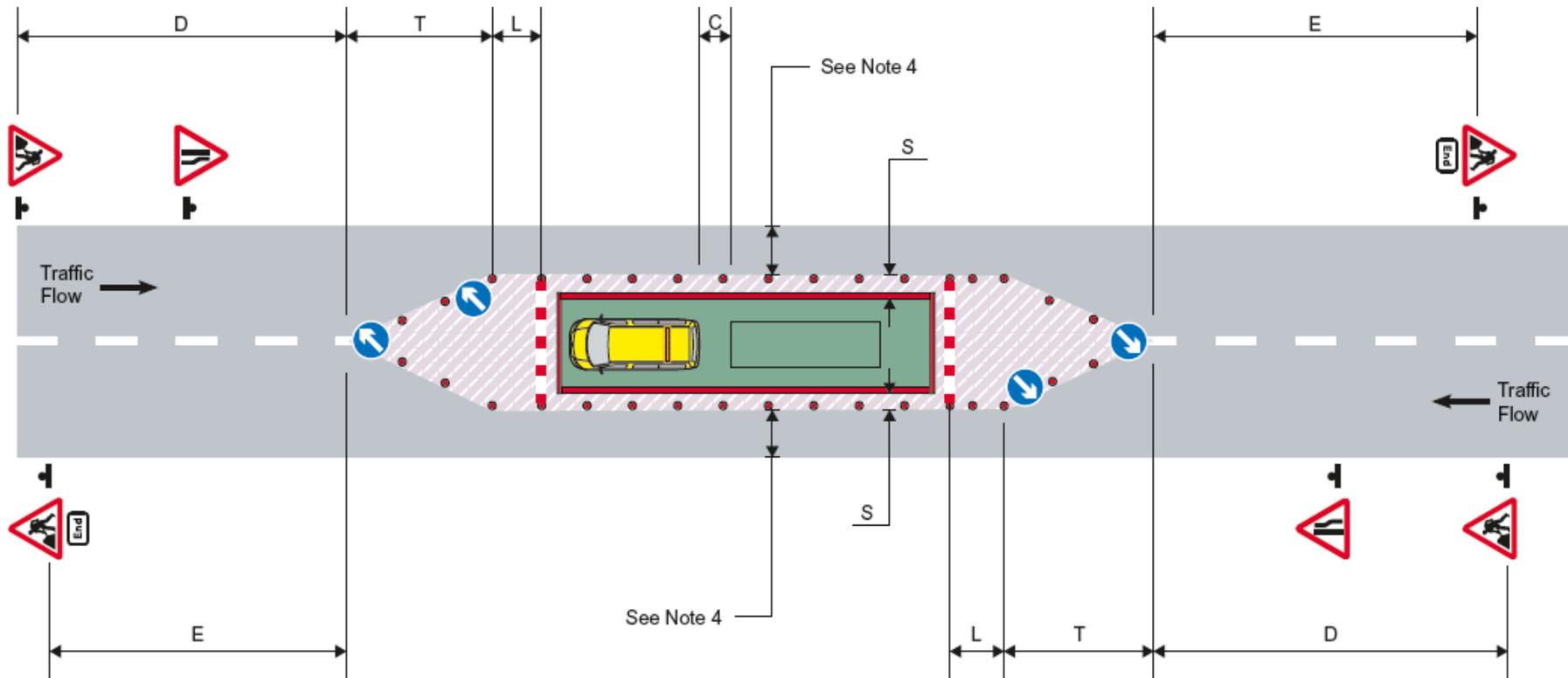
**Caution:** If you are working from the back of a vehicle, try to park it so that its back is facing the works.

*Works between parked vehicles*

**Notes**



*Works in the centre of a two-way road*



**Notes**

1. For numbers and minimum size of cones, and dimensions D, T, C, L, S and E, see [Appendix 1](#).
2. See page 42 for guidance on unobstructed width past the works.
3. See page 42 for guidance on unobstructed width past the works.
4. See page 42 for guidance on unobstructed width past the works.

## Road widths

Turn to page 42 for the minimum road width required for two-way working. If there is not enough space for two-way traffic, it might be appropriate to use traffic control.

**Warning:** Only persons who are competent with signing, lighting and guarding on dual carriageways are to be used for the planning and setting up works.

## Works at road junctions

Keep two-way traffic flowing past the works, if possible. If you are unable to maintain two-way traffic either traffic control or a diversion will be required and you should refer to your **supervisor, manager or other competent person**.

If the works are in a side road, place 'Road works ahead' signs with supplementary arrow plates on the main route. Turn to pages 34 - 36 for details. Where works are situated near but just past a side road junction, the cone taper can start on the approach to the junction.

**Warning:** When working adjacent to or on road junctions controlled by permanent traffic signals or filters, you should consult your **supervisor, manager or other competent person**, and Traffic and Highway Services must be contacted.

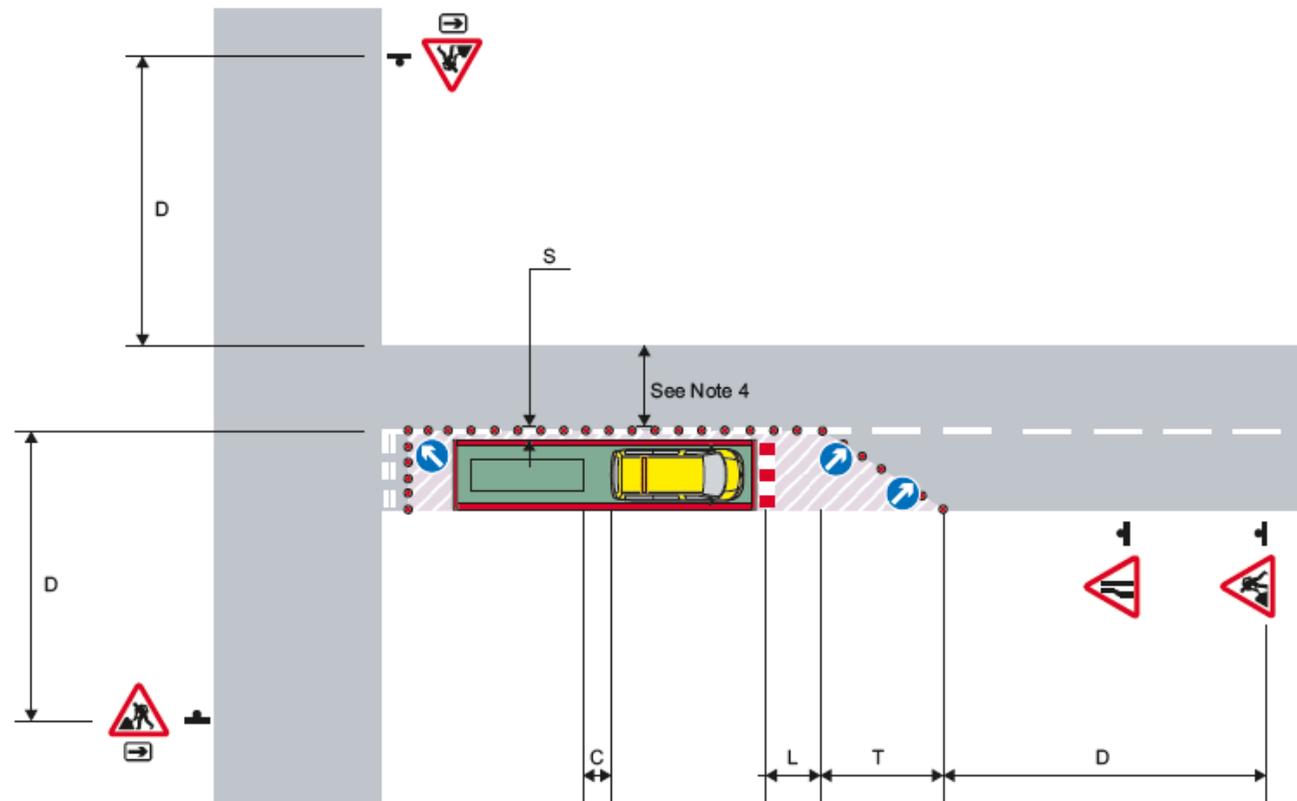
### *Approaches to signal controlled junctions*

A works site on the approach to a signal controlled junction can cause significant traffic disruption at the junction itself. An adjustment of the traffic signals may be required, so consult your **supervisor, manager or other competent person**, who will then consult Traffic and Highway Services.

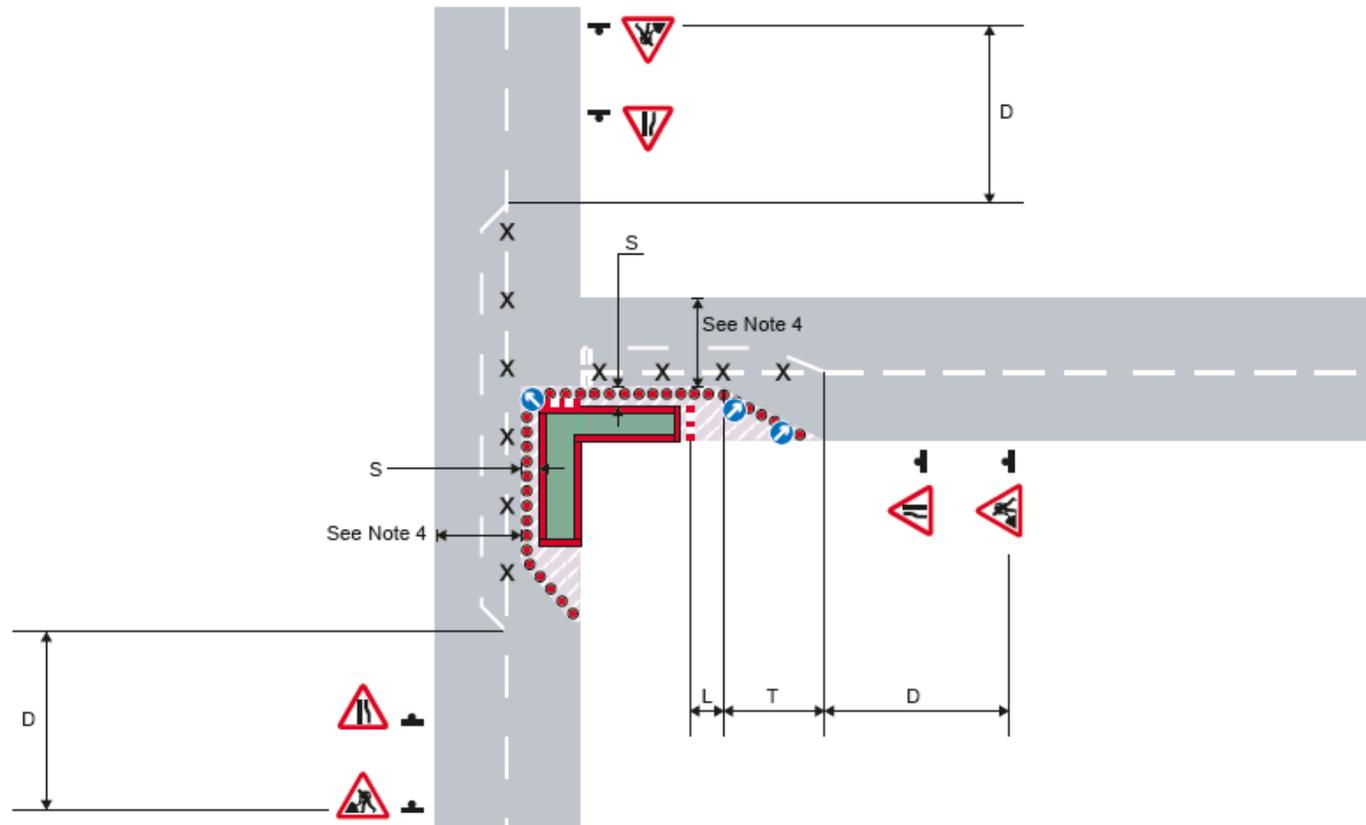
### *At signal controlled junctions*

If permanent traffic signals are not working, or have been turned off, you must ensure that 'traffic signal not working' signs are erected on all approaches. Permanent traffic signals are often replaced by temporary or portable traffic signals for the duration of the works. If pedestrian lights at a junction are affected by the works, the crossing point should be closed off in a similar manner to that shown for pedestrian crossings (see page 41).

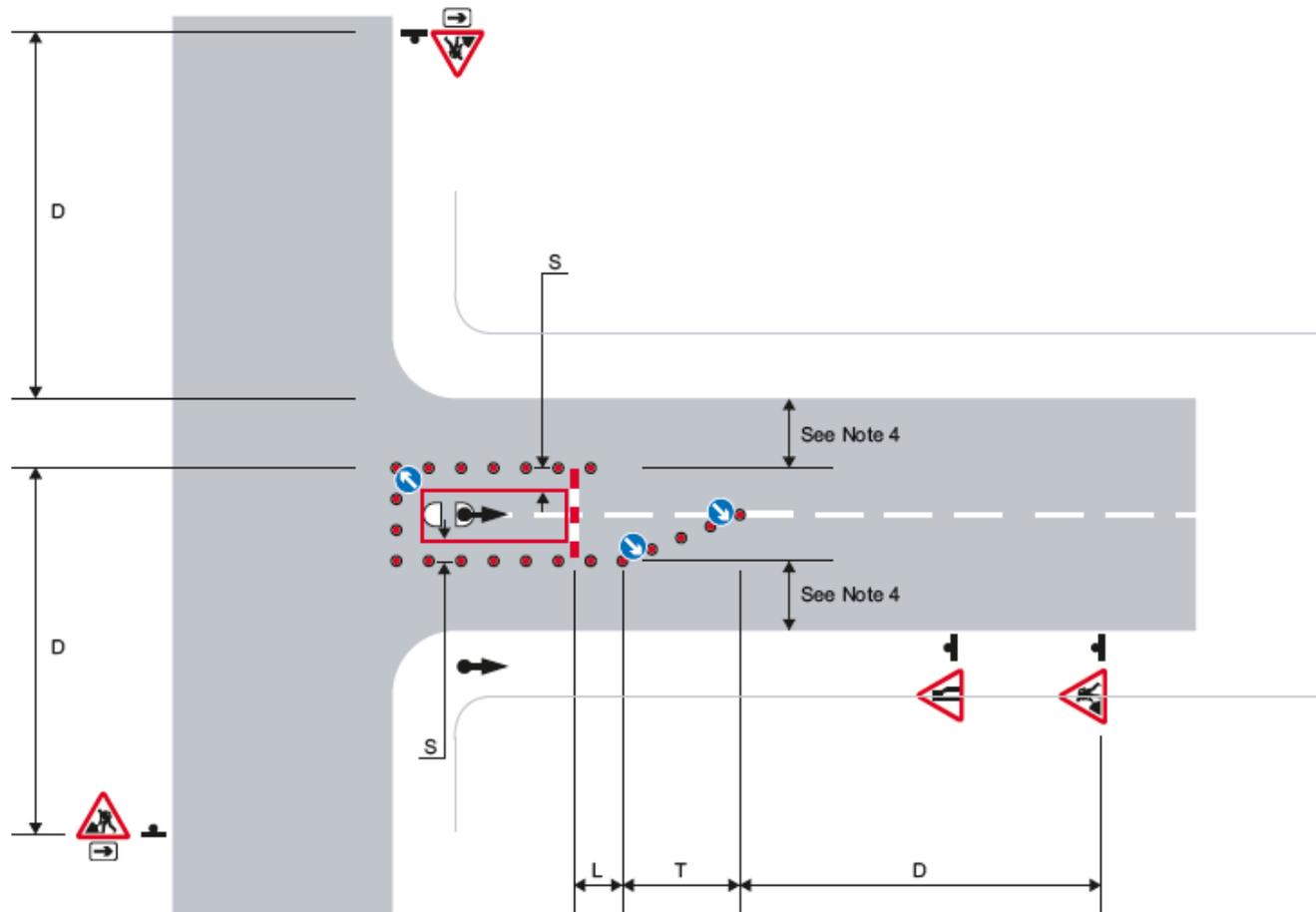
**Caution:** Permanent traffic signals or pedestrian crossings can only be switched off or replaced by temporary or portable signals with the approval of Traffic and Highway Services.

*Works in a side road at a T-junction***Notes**

1. For numbers and minimum size of cones, and dimensions D, T, C, L and S, see [Appendix 1](#).
2. An information board (omitted here for clarity) must be displayed.
3. Appropriate advance warning signs should be placed on all roads approaching the junction.
4. See page 42 for guidance on unobstructed width past the works.
5. If two-way flow cannot be maintained past the works, some form of traffic control will be required – see page 42. Alternatively, flow could be made one-way, using advance No left turn/right turn signs placed in the main road to prevent vehicles from turning into the side road.

*Works in both roads at a T-junction***Notes**

1. For numbers and minimum size of cones, and dimensions D, T, L and S, see [Appendix 1](#).
2. An information board (omitted here for clarity) must be displayed.
3. Appropriate advance warning signs should be placed on all roads approaching the junction.
4. See page 42 for guidance on unobstructed width past the works.
5. If two-way flow cannot be maintained past the works in the side road, some form of traffic control will be required – see page 42. Alternatively, flow in the side road could be made one-way, using advance No left turn/right turn signs placed in the main road to prevent vehicles from turning into the side road.

*Works on a signal island at a T-junction***Notes**

1. For numbers and minimum size of cones, and dimensions D, T, L and S, see [Appendix 1](#).
2. Appropriate advance warning signs should be placed on all roads approaching the junction.
3. See page 42 for guidance on unobstructed width past the works.
4. The length of the coned area may be extended to accommodate a works vehicle.

## Works at roundabouts

### *Works at the entrance to or exit from a roundabout*

Use advance signs to warn traffic on all approaches that there are works at or near the roundabout. Use 'Keep right/left' signs to guide traffic around the coned-off works site.

For single-carriageway approaches, try to keep two-way traffic flowing if possible, but remember the width restrictions (see page 42). However, if the works site makes the road too narrow to allow two-way traffic to pass and shuttle working is not practicable, you will need to consider restricting the road to 'Exit only' from the roundabout (see page 38, Case A). In this case, the traffic usually entering the roundabout on this road will need to be diverted. This requires the permission of Traffic and Highway Services and needs to be pre-planned, as adequate notice has to be given. Please consult your **supervisor, manager or other competent person**.

Extra cones may be needed to restrict traffic to one lane going towards this exit with additional advance warning using 'Road narrows' signs provided on all approaches. Use 'Keep right/left' signs to guide traffic past coned areas.

### *Works in the circulatory area of a roundabout*

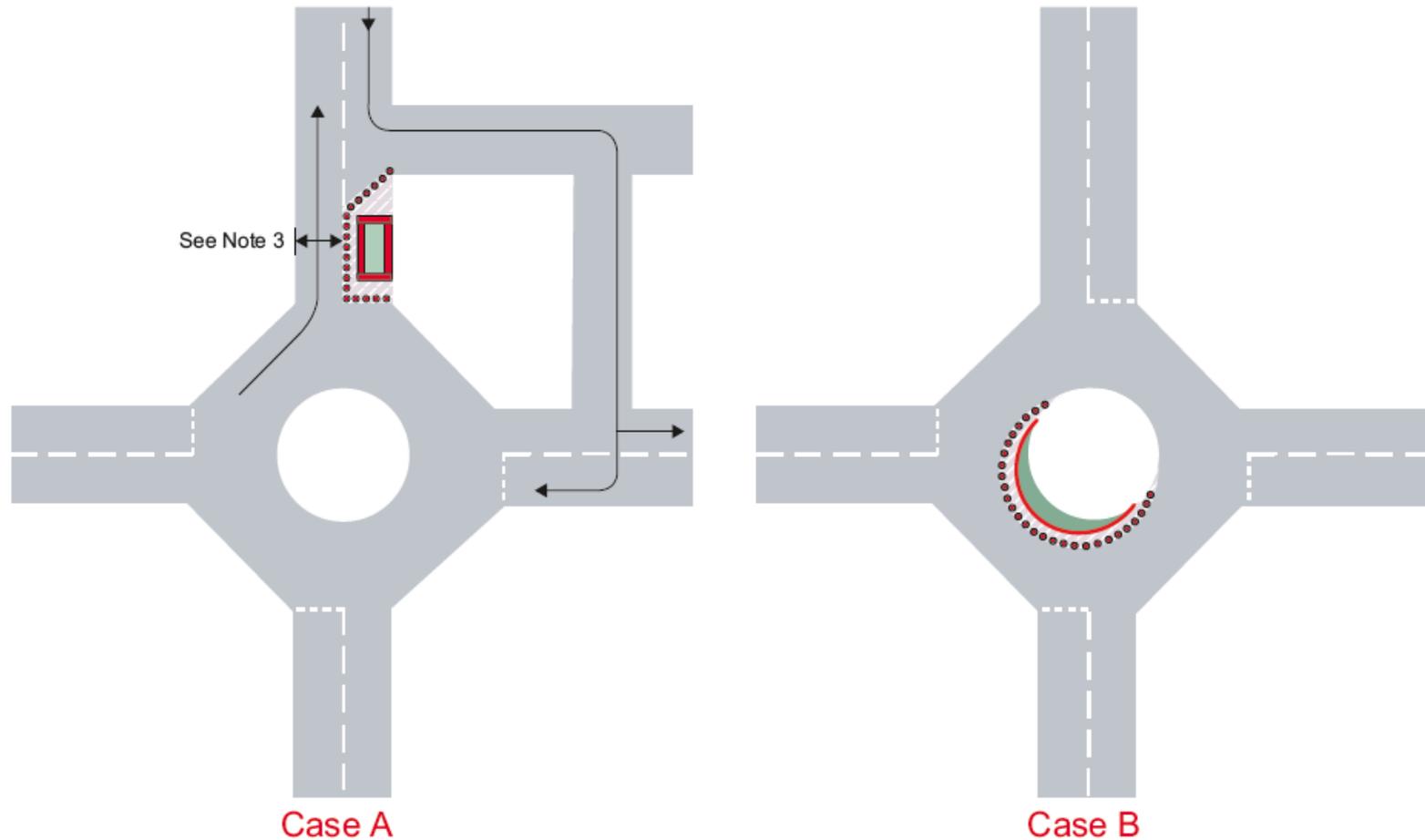
Movement of traffic should be maintained if possible. Guard and cone the works and provide advance

'Road narrows' signs on all approaches. Use 'Keep right/left' signs to guide the traffic past the works site.

**Warning:** Where works are going to completely obstruct the circulatory area of a roundabout, **consult your supervisor, manager or other competent person**.

**Caution:** Varying the number of lanes on the circulatory section of a roundabout can distract drivers. Therefore consider coning down to the same number of lanes on the approaches unless the traffic pattern dictates otherwise. Lane dedication signs might be needed. Vehicle turning paths need to be carefully considered to ensure the rear wheels of long vehicles do not hit the cones, and to ensure there is adequate width on the restricted approach.

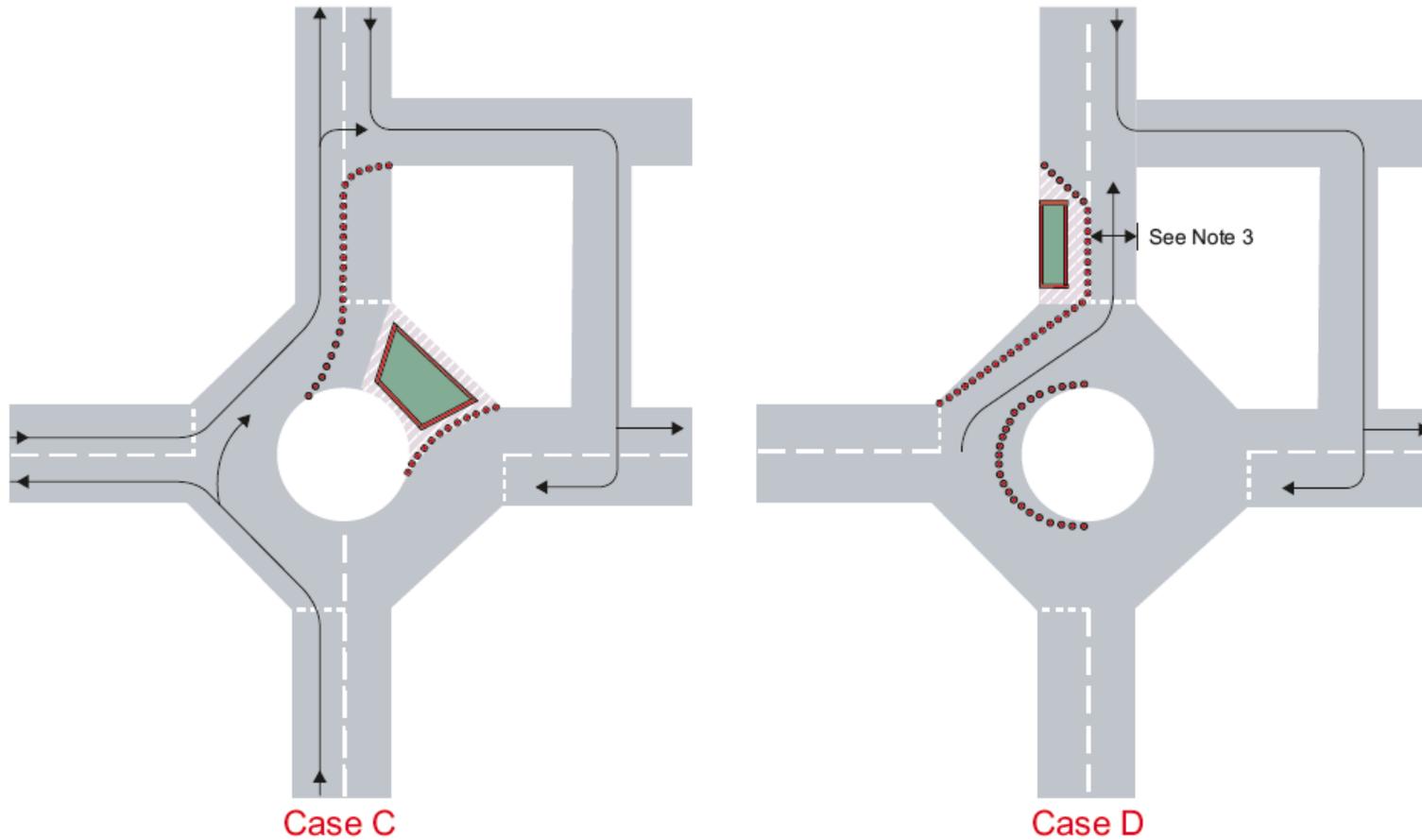
*Works at a roundabout – Cases A and B*



**Notes**

1. Appropriate diversion and advance warning signs must be placed on all roads approaching roundabout.
2. Other signs should be placed as necessary.
3. See page 42 for guidance on unobstructed width past the works.

*Works at a roundabout – Cases C and D*



**Notes**

1. Appropriate diversion and advance warning signs must be placed on all roads approaching roundabout.
2. Other signs should be placed as necessary.
3. See page 42 for guidance on unobstructed width past the works.

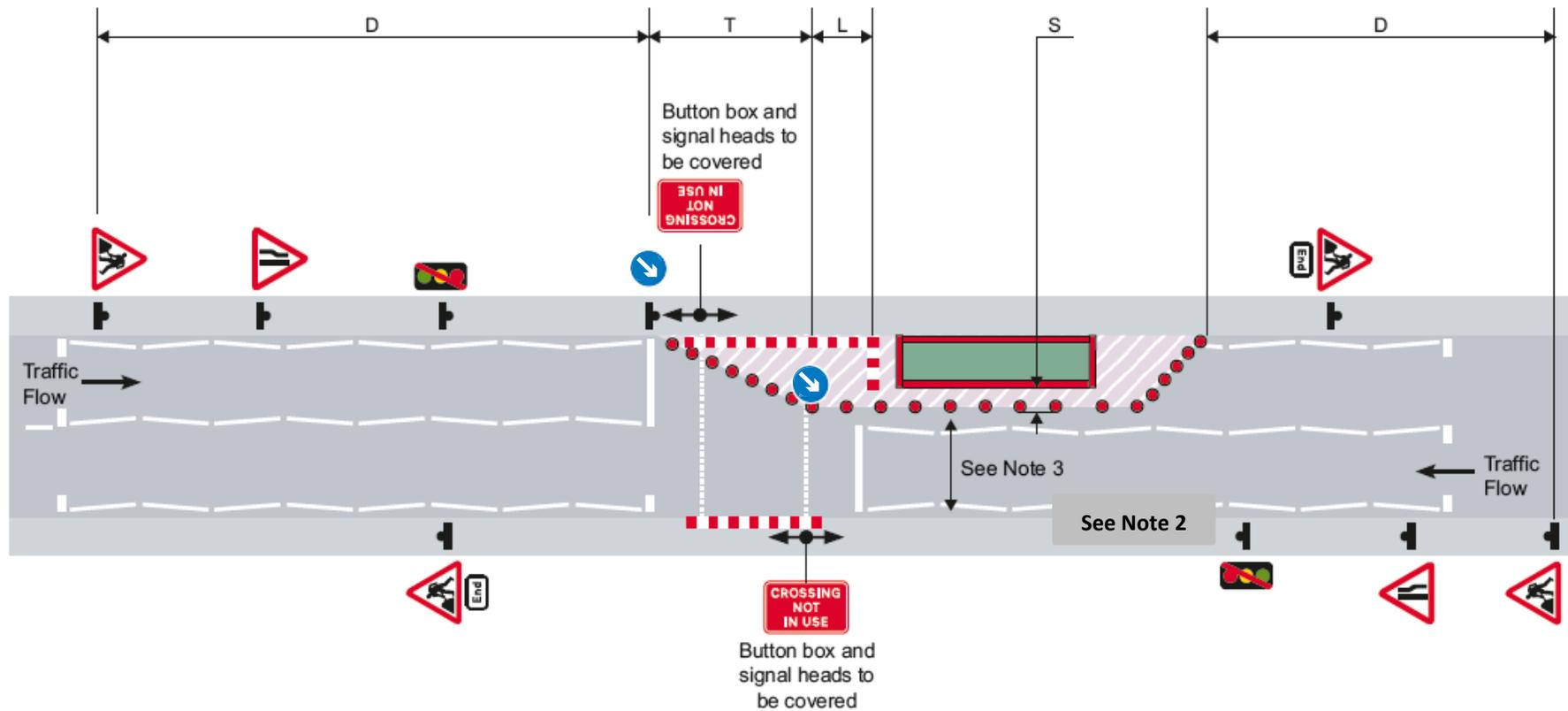
## Works at pedestrian, cycle (Toucan) and equestrian crossings

**Warning:** If there is a pedestrian, cycle (Toucan) or equestrian crossing within the limits of the advance signing, you must consult your **supervisor, manager or other competent person**. Only Traffic and Highway Services can authorise a crossing to be taken out of service.

If a pedestrian, cycle (Toucan) or equestrian crossing has to be suspended owing to works (see illustration on page 41), you must:

- ensure the suspension has been authorised by Traffic and Highway Services;
- agree with Traffic and Highway Services what, if any, alternative arrangements will be provided for users of the crossing prior to suspension;
- ensure 'Crossing not in use' signs have been erected;
- ensure signal heads and push button units (including any tactile rotating cones under the push button units for visually impaired people) are covered;
- disable any audible warnings for visually impaired people;
- erect barriers across the accesses to the crossing; and
- close both crossings if the works spread into one or both sides of a crossing that has a central refuge.

*Works obstructing a signal controlled pedestrian crossing*



Similar arrangements should be made for cycle crossings

**Notes**

1. For numbers and minimum size of cones, and dimensions D, T, L and S, see [Appendix 1](#).
2. See page 42 for guidance on unobstructed width past the works.
3. See page 42 for guidance on unobstructed width past the works.

## Traffic control

Adequate unobstructed width is required to allow two-way traffic to flow safely past the work site. Where such widths cannot be provided, appropriate traffic control must be considered.

### Unobstructed widths

The following table shows Standard and Restricted carriageway widths for different types of traffic. The standard widths are designed to maintain access for buses and heavy goods vehicles, and must be provided wherever practicable. Where this is not practicable and where your risk assessment concludes that it is appropriate to do so, restricted lane widths are permissible.

If you are intending to use restricted lane widths that will prevent the passage of HGVs and buses, a suitable diversion route for these vehicles will need to be agreed with Traffic and Highway Services and bus operators. In these circumstances, you must consult your **supervisor, manager or other competent person** who will advise Traffic and Highway Services to facilitate co-ordination of the works.

The desirable width for shuttle working with normal traffic (i.e. including buses and HGVs) lies between 3.00m and 3.5 m. This range avoids certain widths that create opportunities for unsafe overtaking of cyclists, and is based on Department for Transport guidance. (Research found that for widths between 2.75 and 3.25 m, most cars could overtake cyclists, but with reduced safety. Similarly, it found that for widths between 3.5 and 3.75 m it was possible for HGVs to overtake cyclists, but again with reduced safety.)

Consideration must be given to this before deciding to use widths other than 3.25–3.50 m for normal traffic in shuttle working. Where shuttle working is restricted to cars and light vehicles only, the upper bound of 3.50 m (which is aimed at preventing HGVs from overtaking cyclists) is not relevant, and a desirable minimum only is given.

	<b>Standard: Normal traffic including buses and HGVs</b>	<b>Restricted: Cars and light vehicles only</b>
<b>Two-way working</b>	6.0 m minimum	5.0 m minimum
<b>Shuttle working</b>	3.0–3.50 m desirable width range	2.5 m minimum width

**Warning:** Where the minimum width cannot be met, your **supervisor, manager or other competent person** must consult Traffic and Highway Services.

## Choice of traffic control method

The table below shows various methods of traffic control together with the required conditions for each method. For a given method of traffic control, the relevant conditions in the table must be complied with.

**Caution:** If the situation is not covered by the methods shown, your **supervisor, manager or other competent person** should consult Traffic and Highway Services.

Method	Max speed limit (mph)	Coned area length	Traffic flow (maximum)	Notes
<b>Passive</b>				
Give and take	25	30 m maximum	20 vehicles / 3 mins and 20 HGVs per hour	Signing as per page 45
Priority	35	50 m maximum	42 vehicles / 3 minutes	Signing as per page 47.
<b>Positive</b>				
Stop/Go boards	35	100 m	No limit	Signing as per page 49.
Portable traffic signals	35	300 m maximum	No limit	Traffic and Highway Services permission needed. Signing as per page 51
Road closure or one-way traffic	35	N/A	N/A	See pages 54 and 55.

## Setting up traffic control

Before setting up any traffic control, a risk assessment must be undertaken. Where a positive traffic control method is chosen, notification must be given to the relevant Traffic and Highway Services. For the use of portable traffic signals, **prior permission** is required from Traffic and Highway Services.

**Warning:** When setting up any form of traffic control, the operative must be aware of their own and other road users' safety.

## Works at or near traffic signal controlled junction or pedestrian crossing

Extreme care must be taken to avoid stationary traffic tailing back through a signal controlled junction or pedestrian crossing. Please note that when you are carrying out any works in a location where this may be the case, Traffic and Highway Services must be consulted.

In these circumstances, it might be necessary for the traffic signal at the junction or crossing to be turned off, in which case alternative means of controlling traffic and pedestrians, as appropriate, must be agreed with Traffic and Highway Services and put in place.

**Caution:** To proceed with this option, at the earliest opportunity your **supervisor, manager, or other competent person** must consult Traffic and Highway Services.

## Traffic control by 'give and take'

You can use 'give and take' only when **all** of the following apply:

- the length of the works from first cone to last cone is 50 metres or less;
- drivers approaching from either direction can see 50 metres beyond the end of the works;
- two-way traffic flow is no more than 20 vehicles counted over 3 minutes (400 veh/h);
- no more than 20 heavy goods vehicles pass the works per hour; and
- parking near the works, especially in front and opposite is controlled/prohibited, unless visibility or lane width is unaffected.

The signing you will need is shown on the next page.

Traffic Control by 'give and take'

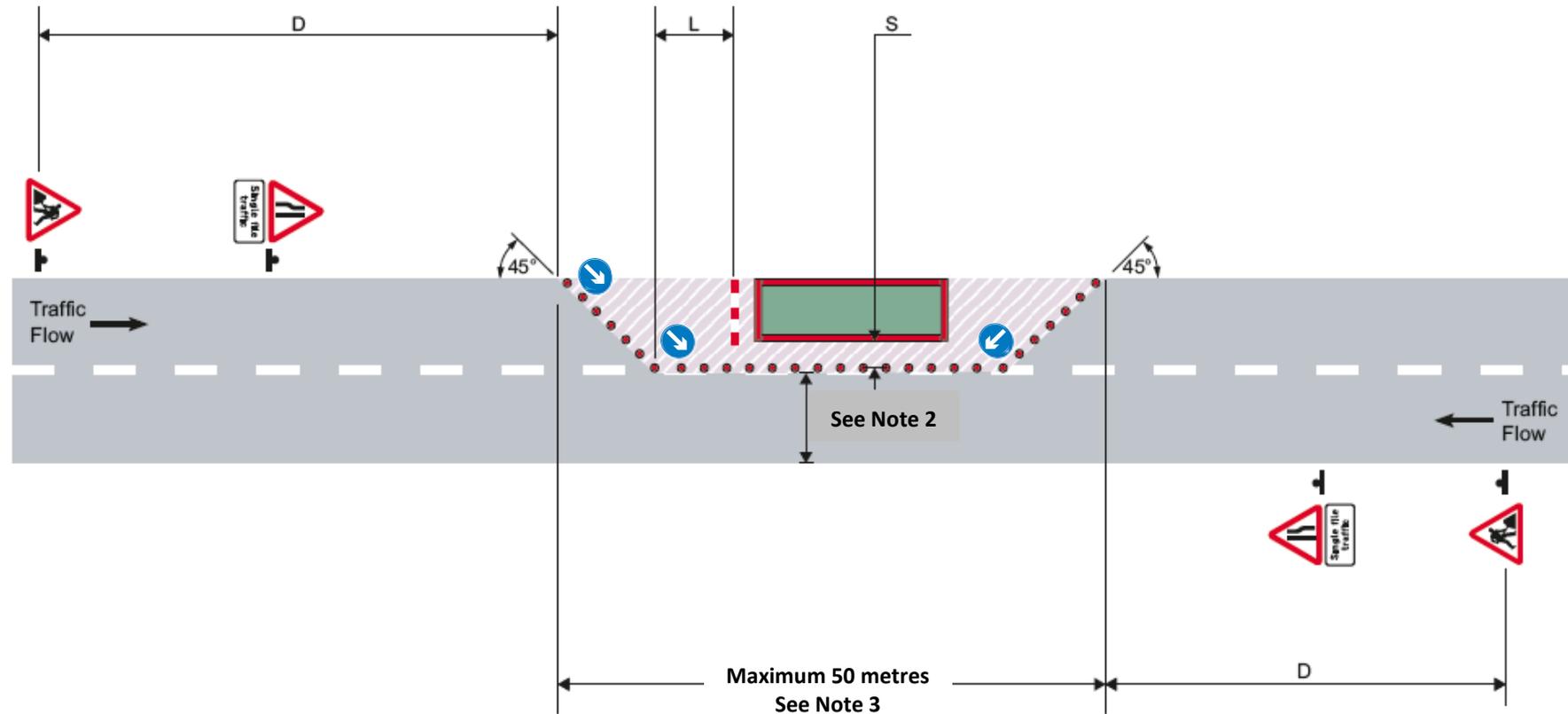


Figure 12 - Traffic Control by 'give and take'

Notes

1. For numbers and minimum size of cones, and dimensions  $D$ ,  $L$  and  $S$ , see [Appendix 1](#).
2. See page 42 for guidance on unobstructed width past the works.
3. 50 m maximum applies only where two-way flow cannot be maintained past the works.

## Traffic control by priority signs

You can use priority signs (shown below) only when **all** of the following apply:

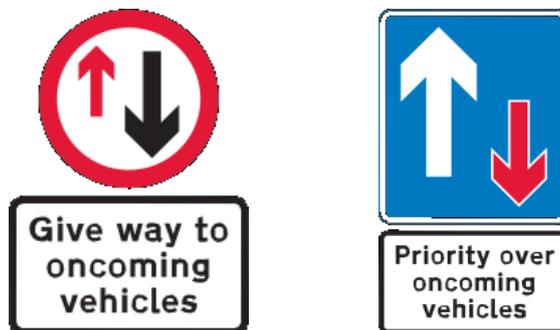
- the length of the works from first cone to last cone is 70 metres or less;
- two-way traffic flow is no more than 42 vehicles counted over 3 minutes (840 veh/h); and
- drivers approaching from either direction have visibility before and beyond the works as shown in the table below.

Speed limit of road	Visibility before and beyond works
25 mph or less	60 m
35 mph	70 m

**Warning:** The sign and supplementary plate ‘Give way to oncoming vehicles’ must be positioned on the same side of the road as the works.

A ‘Give way to oncoming vehicles’ roundel in conjunction with a supplementary ‘End’ plate should be considered where the works are more than 50 metres long and the nature of the works obscures the view of the road downstream of the single file lane.

If the ‘Give way to oncoming vehicles’ sign is used, then the ‘Priority over oncoming vehicles’ sign must be placed for traffic flowing in the opposite direction (see page 45).



Traffic control by priority signs

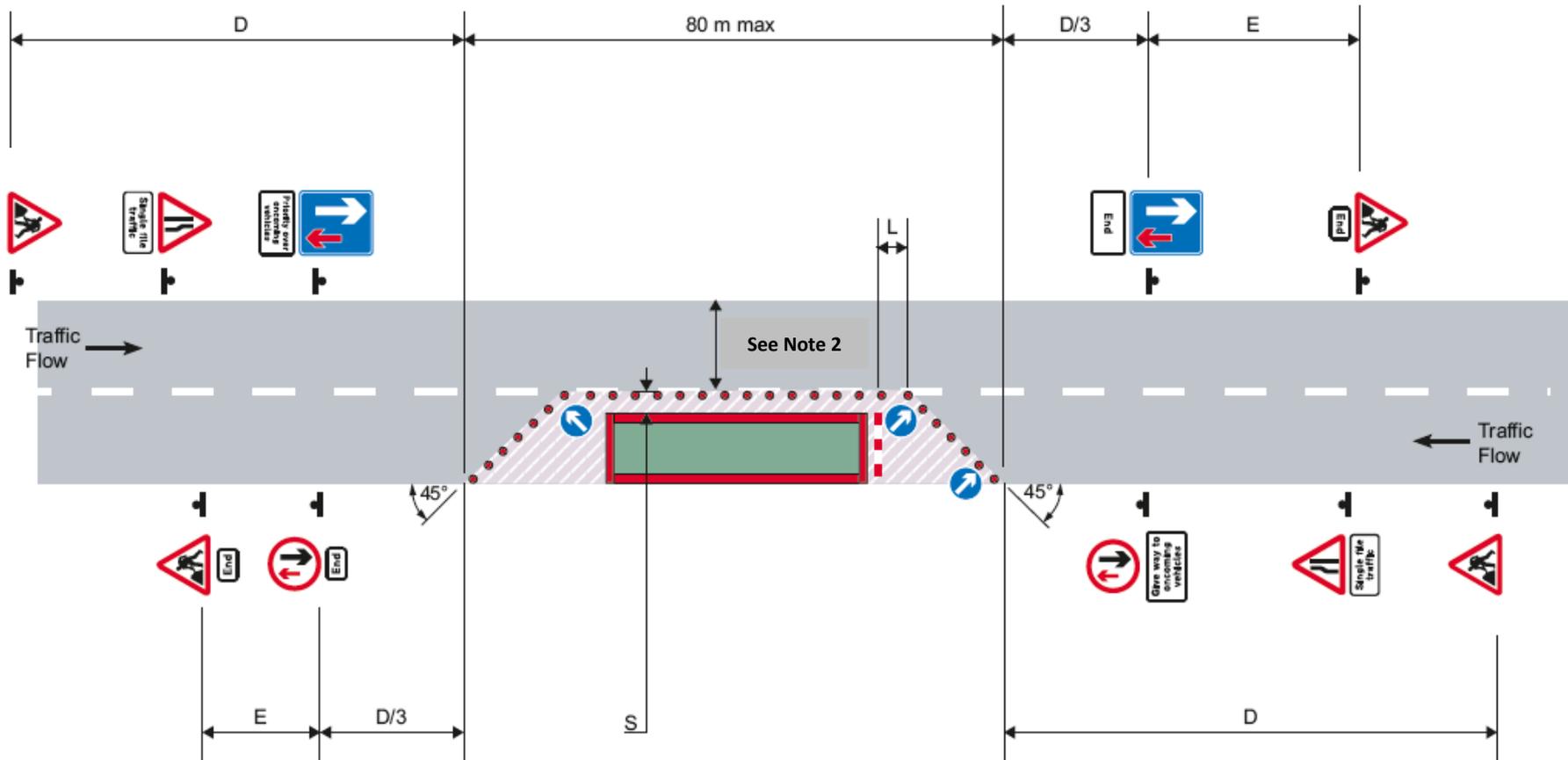


Figure 13 - Traffic control by priority signs

Notes

1. For numbers and minimum size of cones, and dimensions D, L, S and E, see [Appendix 1](#).
  2. See page 42 for guidance on unobstructed width past the works.
- The end of the priority section must be marked with a 'Priority over oncoming vehicles' sign in conjunction with a supplementary 'End' plate.

## Traffic control by Stop/Go boards

**Remotely controlled** Stop/Go boards can be used when **all** the following conditions are met:

- distance between the ‘Stop/Go’ boards is no more than 200 metres;
- use of the boards is restricted to daylight hours
- an unobstructed view of both approaches is maintained;
- the operative is less than 100 metres from both boards; and
- traffic flow is less than 850 veh/h.

You can use **manually** rotated Stop/Go boards under the following circumstances:

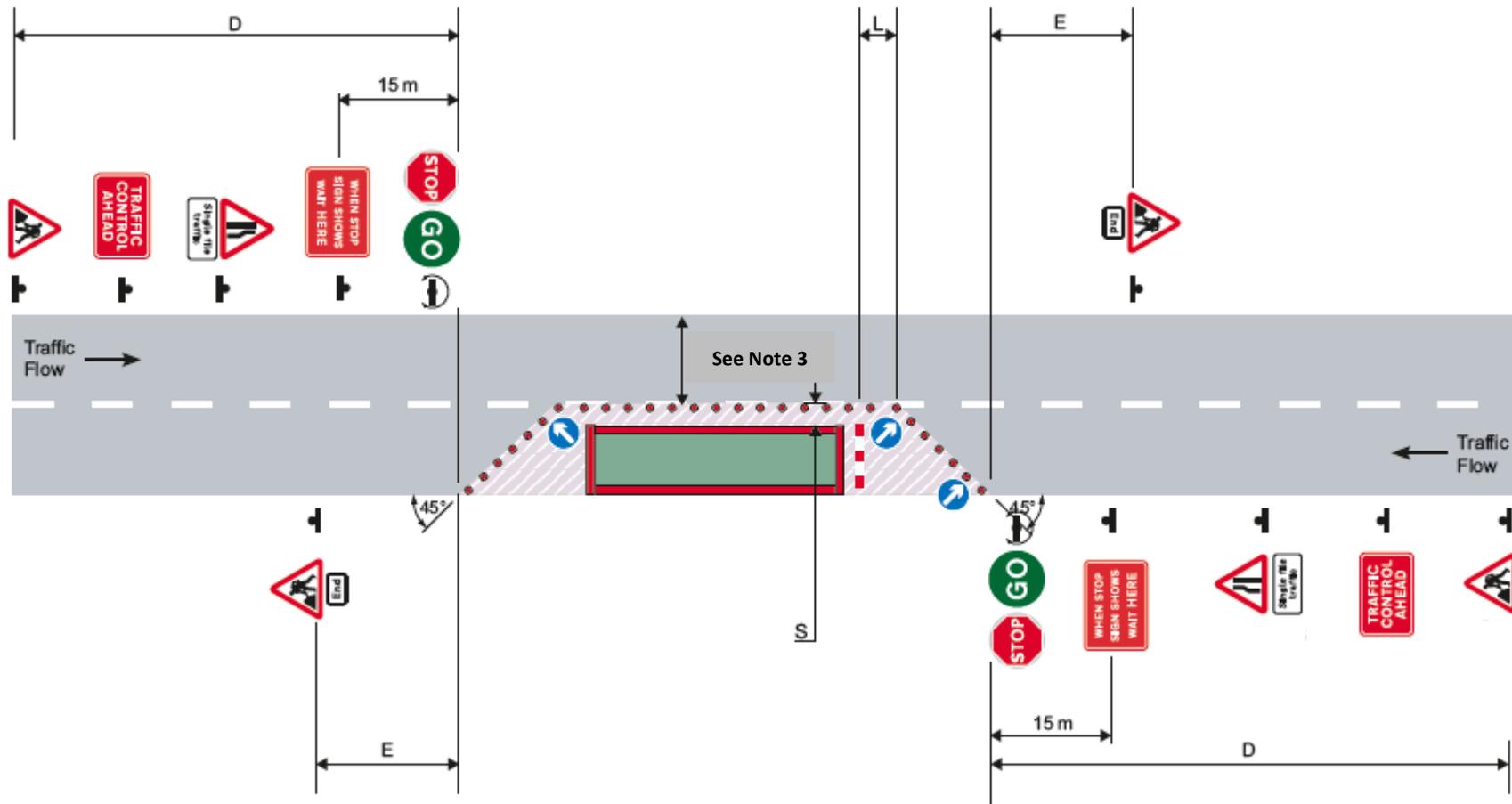
Coned area length (metres)	Maximum two-way traffic flow	
	Vehicles per 3 minutes	Vehicles per hour
Up to 100	70	1400
Up to 200	63	1250
Up to 300	53	1050
Up to 400	47	950
Up to 500	42	850

The signing you will need is shown on page 49.

### **Key considerations:**

1. Further conditions may be placed on the use of Stop/Go boards by Traffic and Highway Services, e.g. the times that they can be in operation.
2. Manually rotated boards should only be used where the operator can be located in a position of safety (which must not be within the safety zone), and the works length or traffic flow prohibits the use of remotely operated boards. They can also be used if a risk assessment has determined that remotely operated boards are not appropriate. The reasons for not using remotely operated boards should be documented.
3. If the site length for manually rotated boards is 20 metres or less, then a single board positioned at one end or in the middle may be used, if it can be clearly seen from both directions. If two boards are used, then the operative showing ‘Go’ to oncoming traffic will be the one to control the change of traffic flow. Adequate time must be allowed for vehicles to clear before the other board is reversed to show ‘Go’ with both boards displaying ‘Stop’ while the shuttle lane clears.
4. Where two boards are in use and the operatives are not in direct line of sight, then two-way radio communication between operators must be used. When manually rotated boards are in use at night, they must be directly illuminated uniformly across the sign face. Partial illumination is not permitted, nor is intermittent illumination. Stop/Go boards must not be used where there is an uncontrolled junction joining the shuttle lane.

Traffic control by Stop/Go boards



Notes

1. For numbers and minimum size of cones, and dimensions D, L, S and E, see [Appendix 1](#).
2. Stop/Go boards should be placed where they will be in full view of approaching drivers. They may be located on either side of the carriageway.
3. See page 42 for guidance on unobstructed width past the works

## **Traffic control by portable traffic signals**

The use of portable traffic signals is a positive method of traffic control that can be appropriate in many environments, 24 hours a day, where works are no more than 300 metres long.

All signal heads should be placed in a position where they are clearly visible to approaching traffic.

Two-way portable traffic signals may only be used under the following circumstances:

- the distance between the 'WAIT HERE' signs does not exceed 300 metres;
- they are vehicle-actuated (unless otherwise agreed by Traffic and Highway Services);
- the equipment is type approved for use on the highway;
- Stop/Go boards are available on site in case of signal failure; and
- Traffic and Highway Services has given written permission for their use (for emergency works, it is permitted to use the portable traffic signals and seek permission retrospectively as soon as possible).

When using two-way portable signals to control traffic, you **must** consider the following:

- the speed of the traffic.
- the position of bus stops and parking bays;
- the position of pedestrian crossings, either signal-controlled or Zebra;
- the location of existing traffic controls, junctions and roundabouts that could affect or be affected by traffic flow beyond the works;
- the needs of cyclists and other vulnerable road users;
- any junctions that are so close to the shuttle section that multi-phase control may be required; and
- the potential for the shuttle section to become blocked by stationary traffic.

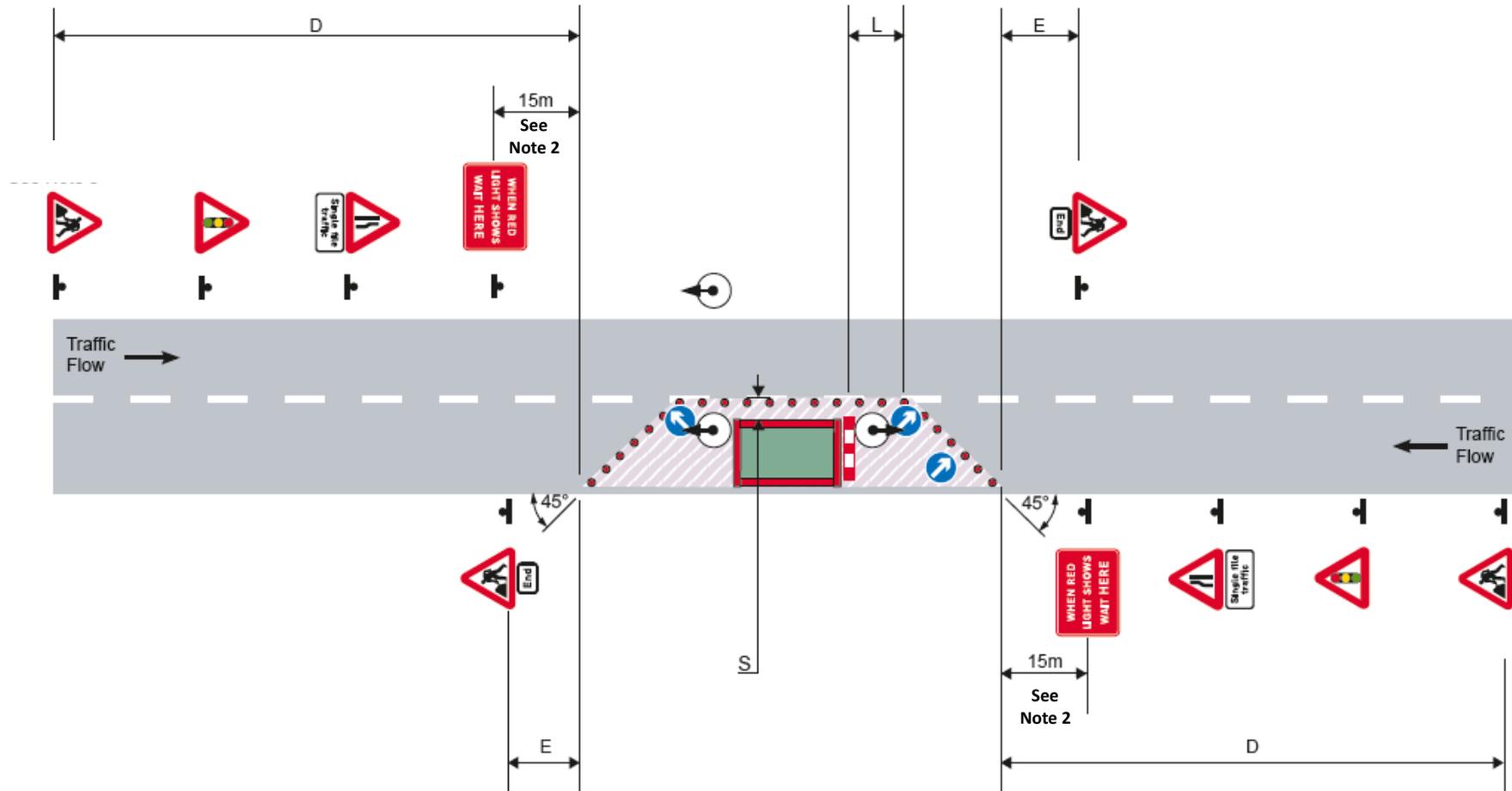
### ***Three-way and four-way traffic control (multi-phase)***

Three-way or four-way control may be appropriate where a side road junction is within the shuttle length, depending on the level of traffic flow. All multi-phase signal systems must have the written permission of Traffic and Highway Services, including express approval for placing the signals at a particular site. The site approval must be retained for the whole time the system is in operation, and the approved plan must be followed.

Three and four-way portable traffic signals may only be used under the following circumstances:

- the distance between the 'WAIT HERE' signs does not exceed 300 metres;
- they are vehicle-actuated (unless otherwise agreed by Traffic and Highway Services);  
and
- the equipment is type-approved for use on the highway.

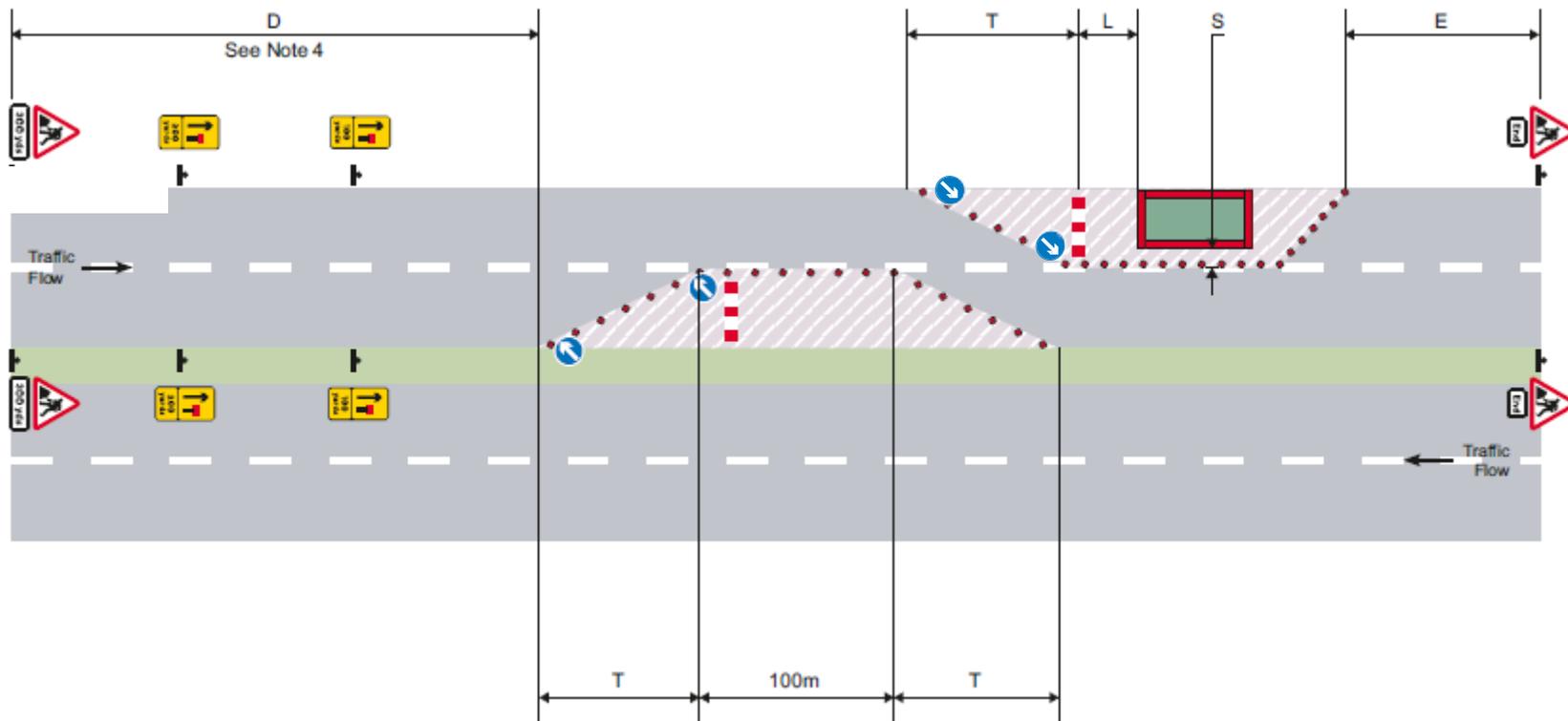
*Traffic control by portable traffic signals*



**Notes**

1. For numbers and minimum size of cones, and dimensions D, L, S and E, see [Appendix 1](#).
2. This distance may have to be increased in some cases to allow larger vehicles to pass the works.

*Dual carriageway with works in left lane*



**Notes**

1. For numbers and minimum size of cones, and dimensions D, T, L, S and E. see table inside back cover.
2. An information board (omitted here for clarity) must be displayed.
3. If access by a works vehicle is required refer to Chapter 8 of the Traffic Signs Manual for signing of access and exit.
4. Dimension D = 275 m (300 yds) in this example.
5. The guide island in the right lane may be omitted in certain circumstances. Refer to Chapter 8 of the Traffic Signs Manual for guidance.

When using three-way and four-way portable signals to control traffic, you **must** consider:

- the speed of the traffic;
- the potential for the exit from the shuttle section to become blocked by stationary traffic;
- the position of bus stops and parking bays;
- the position of pedestrian crossings, either signal-controlled or Zebra;
- the location of existing traffic control, junctions and roundabouts that could affect traffic flow beyond the works; and
- the needs of cyclists and other vulnerable road users.

The minimum requirement is for one signal head on each approach. For safe operation, drivers must be able to see a signal on approach and while waiting at the 'Wait here' sign. This might require the use of more than one signal head on each approach. If further advice is required in relation to the positioning of temporary signals, THS should be contacted before traffic management is set-up.

### ***Installation and commissioning***

To ensure traffic disruption is kept to a minimum, advance warning signs and equipment should be placed ready for use, and portable traffic signals tested in accordance with the manufacturer's instructions.

In most cases, portable signals should be vehicle-actuated. Manual control of the signals should only be used to stop traffic if the shuttle lane has to be occupied for short periods (e.g. for unloading), or in other permitted circumstances.

Many portable signals are radio-controlled, but some are connected by cable. Where power cables cross the carriageway, a cable crossing protector must be used where vehicles have to pass over the cable.

'Ramp' and 'Ramp ahead' signs must be used where the cable protector exceeds 15 mm in height, and the 'Ramp' signs should be placed adjacent to the cable crossing.

**Warning:** Multi-phase traffic signals should only be installed and adjusted by suitably competent operatives.

You must have sufficient Stop/Go boards available (e.g. 4 if you have 4 traffic signal heads in operation) on site in case the portable traffic signals break down. An emergency contact telephone number for the traffic signal provider should be displayed on site.

The signing you will need is shown on page 51.

## Traffic control by road closure

In certain cases, the location or nature of the works being undertaken will make it impossible to achieve a safe working area and maintain traffic or pedestrian flows around the works. In these cases, a carriageway, footpath or footpath closure will be required. This option can only be considered if there is a suitable diversion route for the affected traffic or pedestrians, and under no circumstances should pedestrian access be denied to any property or premises.



All applications for road closures will be considered by Traffic and Highway Services in accordance with its coordination policies.

### *Temporary closure of a carriageway to traffic*

If it is necessary to close a road to vehicular traffic, the approval of Traffic and Highway Services must be obtained.

Sufficient notice must be given in order that Traffic and Highway Services can consider the application, undertake any consultation and consider the traffic management. See [www.gov.gg/roadworks](http://www.gov.gg/roadworks) for minimum notification periods.

Every effort should be made to maintain pedestrian access past the works and to maintain vehicular access to all properties and premises within the closure area. Under no circumstances may pedestrian access be completely denied to any property or premises.

## Cycling through Road Works

If a safe route past the works for motor vehicles cannot be provided, consider whether there is sufficient room to maintain access for pedal cycles. To accommodate two-way cycle traffic past a temporary works site, the desirable minimum width of the cycle track is 2.5 metres.

Where cycle flow is light, and/or give-and-take working operates, it might be acceptable to reduce the width to 1.2 metres. A 0.5 metre safety zone will be required between the works and the cycle track. Where a road is closed to all but pedal cycles, an 'except cycles' supplementary plate sign should be used in conjunction with the above 'Road Closed' sign.

**Except cycles**

### ***Traffic control by one-way traffic flow***

In some circumstances, a full road closure may be avoided by the introduction of one-way traffic to reduce disruption and enable traffic flows to be maintained. This option can only be considered if there is a suitable diversion route for the affected traffic.

Sufficient notice must be given in order that Traffic and Highway Services can consider the application, undertake any consultation and consider the traffic management. See [www.gov.gg/roadworks](http://www.gov.gg/roadworks) for minimum notification periods.

### **Planning for a road closure**

The planning should include:

- co-ordination with Traffic and Highway Services;
- providing information to affected residents/businesses;
- consideration of how to keep disruption to a minimum;
- provision for pedestrians and other vulnerable road users; and
- termination, suspension or creation of bus stops within site or diversion route.

**Caution:** To proceed with this full road closure or reduction to one way flow, your **supervisor, manager, or other competent person** should consult Traffic and Highway Services at the earliest opportunity.

### ***Temporary closure of a footpath***

If it becomes necessary to close a footpath adjacent to a road that remains open to vehicular traffic, a safe alternative route for pedestrians will be required. Refer to page 23 for further guidance.

Sufficient notice must be given in order that Traffic and Highway Services can consider the application, undertake any consultation and consider the traffic management. See [www.gov.gg/roadworks](http://www.gov.gg/roadworks) for minimum notification periods.

## Checking and maintaining sites

### Attended sites

Sites must be checked to ensure that the site set-up is still appropriate and that signs, lighting and guarding have not moved, become damaged or dirty:

- every time you start work on an existing site;
- regularly during active work; and
- before you leave a site.

### Unattended sites

Sites that are unoccupied at any time still require the traffic management to be routinely checked and maintained. The frequency and timing of checks should be determined by the level of risk. The timing of checks might also need to be set to meet local circumstances. You should carry out a site check every day (including on weekends) unless your risk assessment deems this unnecessary. If the site is not going to be visited the next day, contact your **supervisor, manager or other competent person** to discuss when the site should next be visited.

The level of risk may be affected by the following:

- how busy the road and/or footpath is during the hours the site is unattended, e.g. consider whether the site is near:
  - high-volume pedestrian areas;
  - pubs and clubs;
  - schools and colleges;
  - commuter routes and traffic sensitive areas;
  - sports grounds and concert venues;
- sites where vandalism is found to be a problem;
- weather conditions
- risks of the works site, e.g.
  - deep excavations;
  - exposed services;
  - trench crossings;
  - plant and machinery;
  - portable traffic signals;
- pedestrian crossing, footpath or road closures; and
- results of previous checks.

The above list is not exhaustive. Any problems should be dealt with immediately upon discovery.

## Part 3: Equipment and vehicles

### Removing the works

#### Site clearance

On completion of the works, ensure that all plant, equipment and surplus materials are removed promptly from the site, followed immediately by all signs, lighting and guarding equipment. If signs become unnecessary during works, they must be removed or covered. If temporary traffic control is removed or altered during the works, ensure that all surplus signs are removed or covered to minimise confusion.

Signs should not be laid flat, as they may form a trip hazard, and members of the public may pick them up again, thinking they have been knocked over.

#### High visibility clothing

High visibility clothing must conform to the relevant current British or European standards. High visibility clothing must be worn when operating outside the working space e.g. when setting out, maintaining or removing signing, lighting, guarding and temporary traffic control, etc. Your employer may also require you to wear high visibility clothing when operating within the working space. High visibility clothing must be correctly fastened and maintained in a clean and useable condition.

The standard of high visibility clothing required should be determined by a risk assessment. In most circumstances for work outside the working space, an adequate assessment is likely to indicate a requirement for a jacket with the greatest minimum amount of visible material specified in the relevant current British or European standards.

#### Signs and cones

The size shape and style of all signs, including traffic cones, must comply with the standard of reflectorisation in accordance with the relevant current British or European standards. The whole of the sign faces must be reflective, except for any parts coloured black. The retroreflective sleeves of cones must be kept clean. Damaged sleeves or cones must not be used.

Regularly check that all signs, cones and barriers are clearly visible and kept clean. Where site or traffic conditions change, appropriate adjustments should be made to signing, lighting and guarding.

**Caution:** Consult your **supervisor, manager or other competent person** at times of poor visibility or bad weather conditions, as you may need to provide additional signs or suspend the work.

The lighting and reflectorisation of signs and any supplementary plates used with them must comply with current British or European standards.

If signage does not comply with the current British or European standards in relation to reflectorisation, the sign must be of a type approved by Traffic and Highway Services, and must be lamped at all times, with a warning light which is secured to the sign.

## Warning lights

Warning lights must be no more than 1.5 metres above the road. In terms of body colour, lamp colour, flash rate and steady light performance, etc. warning lights must conform to current British or European standards.

Warning lights	Lights must be used	
Speed limit	25 mph	35 mph
Maximum height	1.5 m	1.5 m
Flashing option permitted? (on street lit roads only)	Yes	Yes

*Basic signs and equipment you will need*



Road works ahead



Road narrows on left-hand side ahead



Road narrows on right-hand side ahead



Keep right



Keep left



**End**  
End of road works



Traffic cone



Warning light



Typical pedestrian barrier with tapping rail



Typical traffic barrier



Information board

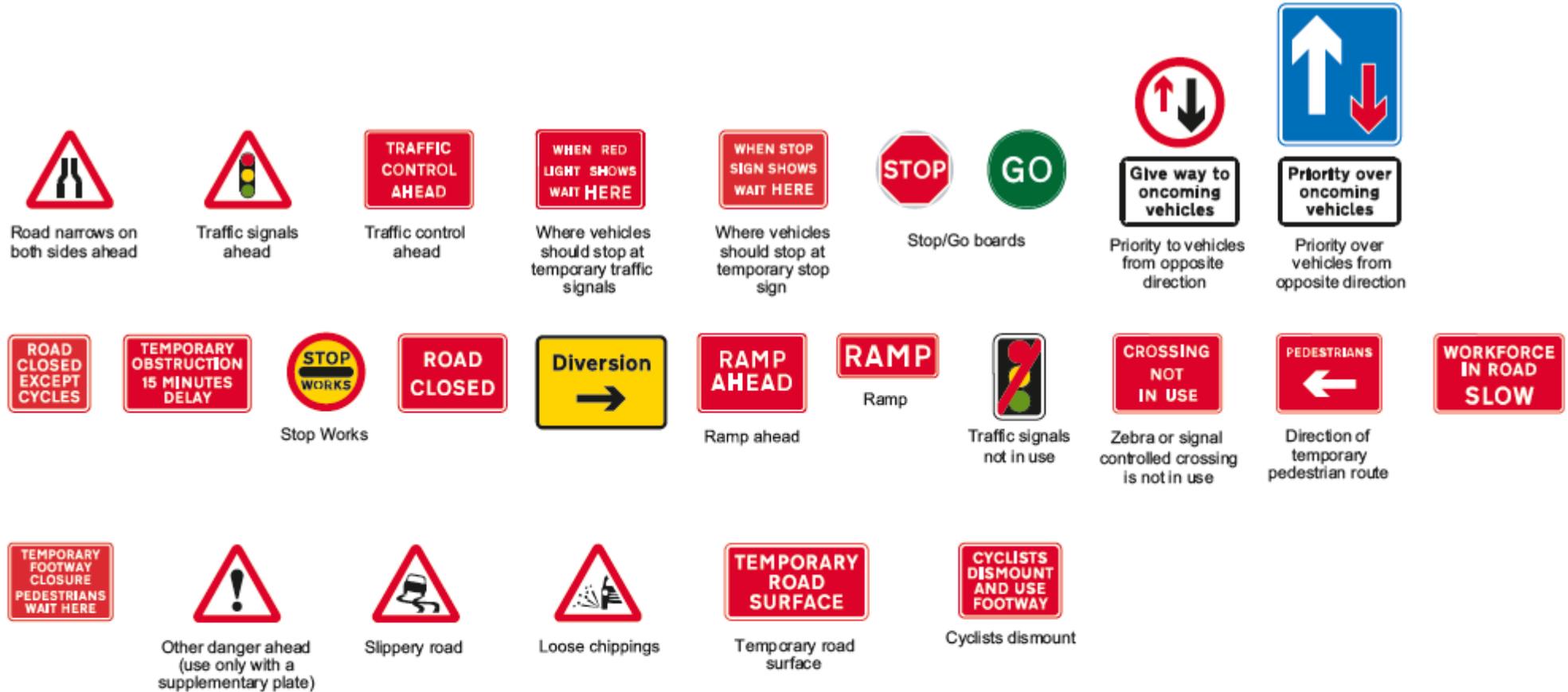


High visibility clothing

Note:

The figure shows some of the more common signs in use. It does not show every sign that might be required.

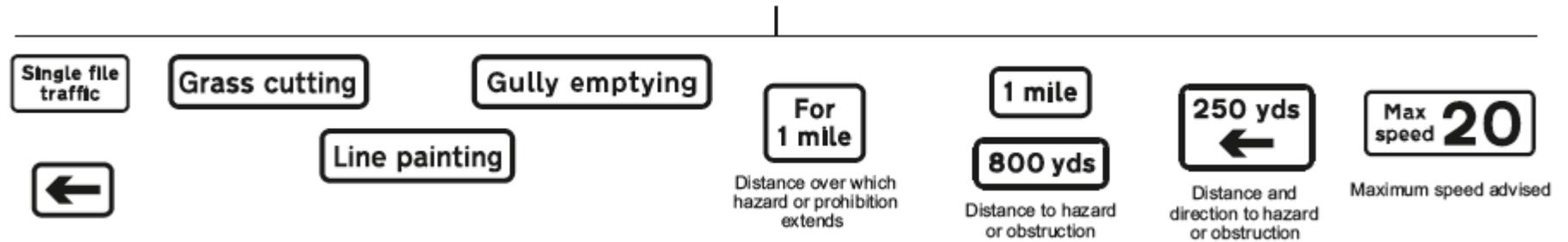
*Other temporary traffic signs that you may need*



**Note:**

1. The figure shows some of the more common signs in use. It does not show every sign that might be required.

*Examples of supplementary plates for use with other temporary traffic signs*



**Note:**

1. The figure shows some of the more common signs in use. It does not show every sign that might be required.

## **Pedestrian barriers**

Pedestrian barriers should have:

- a handrail fixed at between 1 metre and 1.2 metres above ground level, which should be reasonably smooth and rigid to guide pedestrians and give them some measure of support;
- a visibility panel at least 150 mm deep, which may be integral with the handrail or, if separate, must be fixed so that its upper edge is a minimum of 0.9 metres above ground level and may contain the red and white barrier sign; and
- a tapping rail with a minimum depth of 150 mm and a lower edge at ground level or set at up to 200 mm above ground level.

Individual barriers should be joined together to form a continuous barrier to the working space. Barriers should be joined in a way that resists tampering. If, through monitoring visits or in any other way, you find that barriers are being tampered with and separated, then you must take additional measures to secure the barriers, for example by the use of clamps or ties that require a tool for removal.

## **Footpath ramps**

Where pedestrians are diverted to temporary walkways in the carriageway, suitable ramps must be provided to enable people using wheelchairs or pushchairs to negotiate kerbs safely. The layout should allow wheelchair and scooter users to enter and exit a temporary walkway safely.

Ramps must:

- be fixed in position and at least 1 metre wide (1.2 metre wide if possible);
- be constructed from materials strong enough to support pedestrians and mobility scooter users;
- have a slip-resistant surface and edging to prevent wheelchairs etc. slipping over the edge;
- slope gently enough to enable people using manual wheelchairs to mount the kerb without undue difficulty, and to avoid grounding by mobility scooters (some of which have low ground clearances and long wheelbases); and
- allow for rain water to run along the gutter.

## Footpath boards

Footpath boards may only be used on footpaths to maintain foot and light vehicle access during excavation works. **They must not be used on the carriageway.**

Footpath boards used for bridging excavations:

- must extend the full width of any temporary footpath;
- must be strong enough to support pedestrians and mobility scooters and, where light vehicle access is needed, the weight of those vehicles;
- must be made from material that is unlikely to become distorted;
- must cover the whole width of any vehicle crossover;
- must have chamfered edges to prevent tripping;
- must have a slip-resistant surface;
- must be rigidly fixed with sufficient length on either side of the excavation to provide the necessary support. On non-bitumastic surfaces, the use of bitumastic material should be avoided, as the surfacing will be affected after works are completed;
- must only be used where the sides of the excavation under the boards are stable or suitably supported; and
- must be fenced to prevent falls where the edges of the boards are adjacent to an excavation.

## Temporary covers over excavations

Temporary covers should be capable of preventing a person from falling into the excavation. These covers should resist being displaced by wind. As such, they might require ballasting or some other method for fixing them in place.

## Road plates

At times, road plates may be required to bridge excavations in order to open the carriageway to traffic, e.g. during traffic-sensitive periods, at night, or at weekends. Consideration may also be given to the plating of open excavations within the works area.

The use of road plates should be planned in advance and only used with the permission of Traffic and Highway Services. Please be aware that ordinarily vehicles of up to 9 tonnes per axle are free to circulate on Guernsey's roads and with permits heavier vehicles may occasionally travel on some roads.

Those managing works must ensure that any plate must be suitable for its intended location. A assessment will be required to identify the appropriate size and thickness of plate to be used. Road plates must be made of suitable material with an appropriate skid-resistant surface. Their installation must not present a hazard to cyclists or motorcyclists.

The sides of the excavations must be suitably supported beneath the road plates, which must be rigidly secured to the road surface. Road plates must have chamfered edges, integral ramps, be sunk into the surface or have a suitable bitumastic material to provide a ramp to the plate level. Where ramps exceed 15 mm in height, appropriate ramp warning signs should be used.

As an alternative to plating, interim reinstatement should be considered. Reinstatements must be in accordance with the Traffic and Highway Services' relevant specification.

**Warning:** The use of road plates must always be authorised by your **supervisor, manager, or other competent person** who will decide on the appropriate size and strength of plate to be used. This will depend on the width of excavation to be spanned and the type and speed of traffic expected to use the plates.

### Vehicles

Any vehicle used for mobile or short-duration works must have one or more amber warning beacons such that at least one beacon can be seen from any direction, at a sufficient distance to allow approaching vehicles to stop safely.

Vehicle movements in and out of the works area, or adjacent to it, should be directed by a dedicated banksman. This is especially important, where the proximity to other road users, to the works site, or adjacent lay-up area (for vehicles waiting to unload materials), is recognised as increasing the risk to both operatives and members of the public.

It is strongly recommended that any vehicle stopping on the highway for works purposes is equipped with either a roof-mounted flashing amber warning light bar (comprising at least two independent light sources) or two independent vehicle roof-mounted flashing amber warning beacons, visible through 360°.

In addition, it is strongly recommended that all vehicles stopping on the highway for the purpose of work, or being used for mobile works, are marked with high visibility rear chevron markings. These should comprise alternate strips of fluorescent orange or red retroreflective material and fluorescent yellow non-retroreflective material, of not less than 150 mm width each, inclined at 45–60° to the horizontal and pointing upwards. The chevrons should cover as much of the rear-facing portion of the vehicle as possible without obscuring windows, vehicle lighting or the registration plate.

## Glossary

**Exit taper** – a line of cones tapering into the kerb downstream of the working space.

**Lead-in taper** – a line of cones tapering out from the kerb upstream of the working space.

**Lighting-up time** – the time between half an hour after sunset and half an hour before sunrise.

**Longways clearance (L)** – the distance between the end of the lead-in taper and the first traffic barrier placed across the lane.

**Minor works** – works with a planned duration of three days or less, excluding immediate or major works (see the Co-ordination Code of Practice for more details).

**Mobile works** – work carried out from a vehicle moving significantly more slowly than the general traffic.

**Precautionary area** – any part of any road, including side roads that can be reached by following a route leading away from the centre of the crossing for a distance of 200 m or less.

**Safety zone** – additional space around the working space to ensure the safety of the workforce and highway users.

**Sideways clearance (S)** – the part of the safety zone between the working space and moving traffic.

**Tapping rail** – a rail at the base of pedestrian barriers used by visually impaired long-cane users.

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# Appendices

## Appendix 1 - Setting out site

(Distances in metres unless stated otherwise, numbers are minimum numbers)

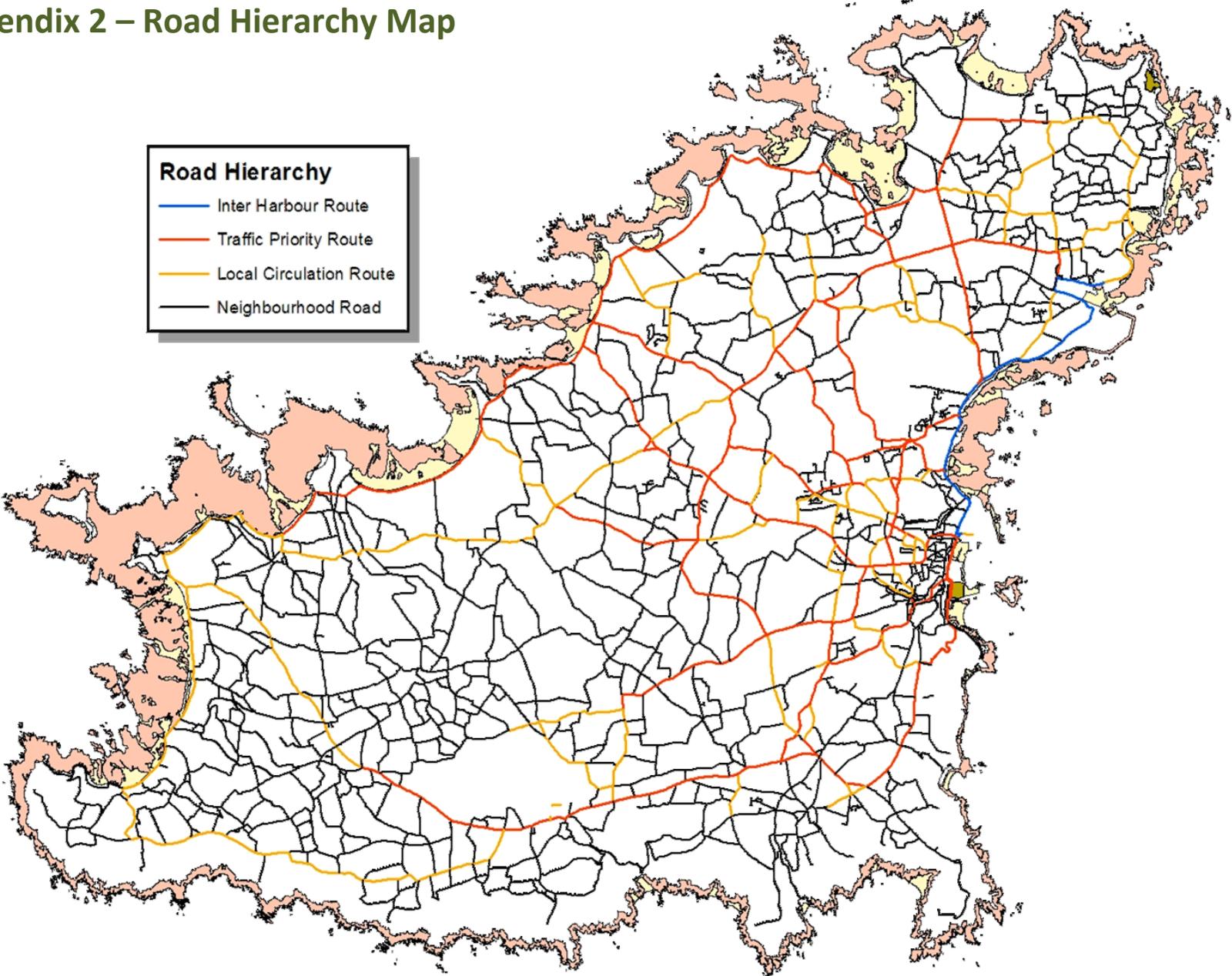
Type of road	Minimum visibility distance to first sign lead-in taper	D Distance from first sign to start of lead-in taper		Lead-in taper							S Minimum width of sideways safety zone	E Distance from last cone to end of works sign	Minimum size of signs (mm)
				Width of works including sideways safety zone									
				1m	2m	3m	4m	5m	6m	7m			
Single carriageway – speed limit <b>25</b> mph or less	60	20 to 45	T Taper length	13	26	39	52	65	78	91	0.5	10 to 30	450
			No of cones	4	4	6	7	9	10	12			
			No of lights	–	–	–	–	–	–	–			
Single carriageway – speed limit <b>35</b> mph or less	60	45 to 110	T Taper length	20	40	60	80	100	120	140	0.5	30 to 45	750
			No of cones	4	6	8	10	13	15	17			
			No of lights	3	5	7	9	12	14	16			

Speed limit mph	25 or less	35
<b>L</b> Longways clearance	0.5	15
<b>C</b> Clearance to works vehicle	2	5

### Notes

1. For Island roads covered by this Code, the minimum height of cones is 450 mm.
2. The maximum spacing between cones in longitudinal lengths shall be 9 metres, but no fewer than two cones shall be used in any length between tapers.
3. Lead-in tapers where two-way traffic control is used, and all exit tapers shall be at about 45° to the kerb line with cones spaced 1.2 metres apart maximum.
4. In certain circumstances on congested roads with speed limits of 25 mph or less, the lead-in taper may be reduced to 45° (see page 17).
5. The longways clearance (L) is the distance between the end of the lead-in taper and the first traffic barrier placed across the lane.

# Appendix 2 – Road Hierarchy Map



## Appendix 3 – Site Survey

Road:	
Date:	
Completed by:	
Company:	

Safer Roadworks  
Page Ref

### Questions

### Action

Site Safety					✓ or N/A
1	Is everyone on site wearing the correct personal protective clothing?	p57	Yes	Ensure they are wearing it correctly e.g. jackets/waistcoats fastened down the front.	
			No	Close the site until this situation is rectified.	
2	Have all unnecessary items of equipment, waste and unauthorised vehicles been removed from the site?	p57	Yes	On to question 3	
			No	Explain any deficiency to the operatives and have them corrected immediately	
3	In general terms is the site tidy with no obvious hazards to either vehicles or pedestrians?	p9	Yes	Congratulate your operatives on a good job. Check the relevant section regarding specific situation.	
			No	Explain any deficiency to the operatives and have them corrected immediately	

<b>Mobile works &amp; minor works carried out from a vehicle.</b>					✓ or N/A
4	Is there good visibility?	p11	Yes	On to question 5	
			No	Stop the works or sign and guard for a full working site.	
5	Is traffic flowing freely?	p12	Yes	On to question 6	
			No	Stop the works or sign and guard for a full working site or discontinue work and ask for a road closure.	
6	Is the vehicle displaying conspicuous markings?	p64	Yes	On to question 7	
			No	Change the vehicle/vehicle signing or sign and guard for a full working site.	
7	Has the vehicle roof mounted beacons that are operating?	p14	Yes	On to question 8	
			No	Repair the lamp or lamps or change the vehicle or sign and guard for a full working site.	
8	Are directional arrows being displayed?	p22	Yes	On to question 9	
			No	Have them displayed or discontinue work until they are obtained and displayed.	
9	Is the site free of pedestrian movement and cyclists?	p25	Yes	You appear to have a safe site.	
			No	Move on to the section on pedestrian safety and cyclists.	

<b>Full Working Site (Two Way Traffic)</b>					✓ or N/A
10	Is the remaining road width sufficient for two-way traffic when the works are in place?	p45	Yes	On to question 11	
			No	Move on to full working site (traffic control situation)	
11	Are all the correct signs available, clean, and undamaged?	p14	Yes	On to question 12	
			No	Stop the works and rectify the situation.	
12	Have the signs been set out in the correct order, distance and visible to oncoming traffic?	p20	Yes	On to question 13	
			No	Reposition the signs.	
13	Are the correct number of cones available, are they clean with reflective sleeves undamaged?	p20	Yes	On to question 14	
			No	Stop the works and rectify the situation.	
14	Have the cones been set out correctly with 25 to 50 metre lead in taper, 45 degree exit taper, longitudinal and sideways clearance?	p17	Yes	On to question 15	
			No	Reposition the cones.	
15	Is visibility good?	p58	Yes	On to question 16	
			No	Put out safety lamps.	
16	Is the site free of pedestrian movement and cyclists?	p25	Yes	You appear to have a safe site.	
			No	Move on to the section on pedestrian safety and cyclists.	

<b>Full Working Site (Traffic Control)</b>					✓ or N/A
17	Is the remaining road width sufficient for traffic control when the works are in place?	p45	Yes	On to question 18	
			No	Discontinue work and ask for a road closure.	
18	Is the traffic flowing freely and safely?	p12	Yes	On to question 19	
			No	Use stop/go boards or temporary traffic signals or road closure.	
19	Are all the correct signs available (including 'single file traffic' for road narrows board), clean, and undamaged?	p14	Yes	On to question 20	
			No	Stop the works and rectify the situation.	
20	Have the signs been set out in the correct order, distance and visible to oncoming traffic?	p20	Yes	On to question 21	
			No	Reposition the signs.	
21	Are the correct number of cones available, are they clean with reflective sleeves undamaged?	p20	Yes	On to question 22	
			No	Stop the works and rectify the situation.	
22	Have the cones been set out correctly with 45 degree lead in taper, 45 degree exit taper, longitudinal and sideways clearance?	p17	Yes	On to question 23	
			No	Reposition the cones.	
23	Is visibility good?	p58	Yes	On to question 24	
			No	Put out safety lamps.	

24	Is the site free of pedestrian movement and cyclists?	p25	Yes	You appear to have a safe site.	
			No	Move on to the section on pedestrian safety and cyclists.	
<b>Road Closure</b>					✓ or N/A
25	Have local residents been advised of the works activity?	p55	Yes	On to question 26	
			No	Do so immediately.	
26	Is all working activity constrained with defined working boundaries?	p17	Yes	On to question 27	
			No	Do so immediately.	
27	Are delivery/removal vehicles controlled by banksmen?	p64	Yes	On to question 28	
			No	Do so immediately.	
28	Is the site free of pedestrian movement and cyclists?	p25	Yes	You appear to have a safe site.	
			No	Move on to the section on pedestrian safety and cyclists.	
<b>Pedestrian Safety and Cyclists</b>					✓ or N/A
29	Is it necessary for pedestrians to pass in the vicinity of the work area?	p23	Yes	On to question 30	
			No	Redirect them away from the area.	
30	Has a safe passage been established with twin rail barriers?	p62	Yes	On to question 31	
			No	Obtain and erect barriers.	

31	Have ramps been incorporated for wheelchair and pushchair users where necessary?	p62	Yes	On to question 32	
			No	Introduce them immediately or utilise existing dropped kerb areas.	
32	Are the correct pedestrian signs in place?	p27	Yes	On to question 33	
			No	Obtain and erect them.	
33	Is visibility good?	p58	Yes	On to question 34	
			No	Put out safety lamps.	
34	Have you walked through this provision and considered it from the position of a disabled, partially sighted or blind person?	p62	Yes	On to question 35	
			No	Do so and make any necessary adjustments.	
35	Has consideration been given to provision for cycles?	29/ 54	Yes	You appear to have a safe site.	
			No	Place out necessary signage or advise Traffic and Highway Services no cycle access possible	

**Any other comments / Additional Actions Taken**

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