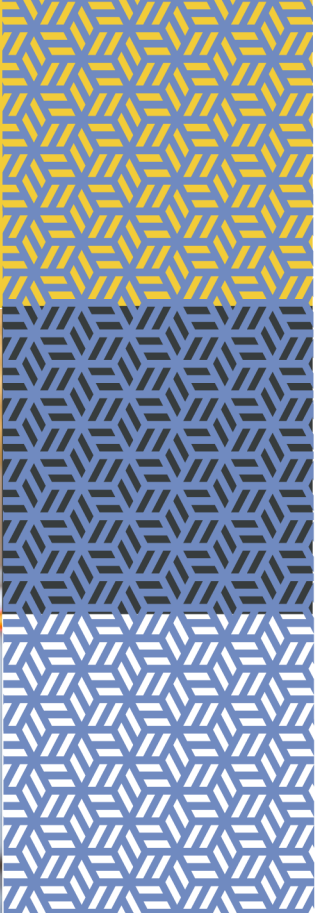
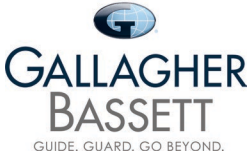


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Risk control
Safety in Managing Street
Works – Chapter 8



In partnership with



Safety in Managing Street Works – Chapter 8

Introduction

Although often taken for granted the safety risks associated with travel on the public highway are some of the most significant we face in our lives. The way our highway network has evolved means that users regularly find themselves near heavy and fast-moving vehicles often with limited protection from potentially fatal collisions.

According to government statistics¹ there were 1,633 fatalities and approximately 28,000 seriously injured people on UK roads during the year to June 2023.

A significant proportion of these casualties were pedestrians and cyclists and no doubt amongst the former of these groups will be people working on the highway.

As traffic levels rise and the general condition of the public highway deteriorates due to decades of underinvestment, the likelihood of encountering roadworks (particularly short term or emergency repairs) would seem to be on the increase for many travellers.

Roadworks are mostly unwelcome and often unexpected interrupters to our journeys and can also pose a very significant safety risk to both the workers and the network users, especially if drivers are “driving urgently” to get to their destination and are not anticipating a queue of traffic or obstruction ahead.

It is therefore essential that any roadworks are carefully managed to adequately prepare and protect all affected users of the highway, and this duty falls primarily to the relevant highway authority.

Legislation and Codes of Practice

Across the UK, the management and coordination of street works on our highways is governed by numerous pieces of legislation including the Highways Act 1980, Roads (Scotland) Act 1984 and the New Road and Street Works Act 1991 (NRSWA)². Further complicating the legal landscape are several caveats and amendment regulations applicable only to certain devolved nations.

Thankfully, when it comes to safely carrying out any signing, lighting or guarding of street works there is a singular Code of Practice (Code of Practice) often referred to as the ‘Red Book’ which sets out the standards to be followed.

Titled ‘Safety at Street Works and Roadworks A Code of Practice³’ compliance with this Code of Practice is a legal requirement for relevant duty holders, except for Scottish Roads Authorities where it is recommended. The codes’ adoption also extends to any other undertakers such as local utilities companies working on their services and equipment in the highway or contractors appointed by the highway authority.

This should ensure there is a level of consistency in what road users experience when it comes to signage and traffic control at temporary roadworks wherever they are travelling in the UK, but it does not apply to motorways or dual carriageways with a speed limit of 50 mph or more.

It is worth stating at this point that the adopted highway includes carriageways, footways, and verges.

The CODE OF PRACTICE has been produced to help highways maintenance operatives, managers, supervisors, designers, and planners to apply the requirements of the various regulations and guidance in a practical way. The Code of Practice uses a mixture of illustrations, photos, plan diagrams and straightforward text to explain the positioning of signage and barrier deployment etc. for a range of roadwork configurations and scenarios.

Chapter 8 refers to the part of the Traffic Signs Manual⁴ which gives detailed guidance on the design and use of traffic signs, their lighting along with road markings prescribed by the [Traffic Signs Regulations and General Directions \(TSRGD\) 2016](#)⁵ for all roads including motorways and dual carriageways.

The full title of Chapter 8 is Traffic Safety Measures and Signs for Roadworks and Temporary Situations and has two parts – Part 1: Design, and Part 2: Operations, and it is these that the Code of Practice is based upon.

We should not forget that the public highway is also a workplace for those people performing work activities upon it, which therefore brings into play the Health and Safety at Work Etc. Act 1974 and many of the delegated regulations including the Management of Health and Safety at Work Regulations 1999 and most relevant The Construction (Design and Management) Regulations 2015.

In summary, these regulations will, amongst other things, require employers to:

- Assess the risks to their employees and others affected by the work activities
- Plan and implement controls that effectively minimise the risks
- Provide a safe place and safe system of working
- Provide adequate information, instruction, training, and supervision

All the above will be aided by adhering to the standards depicted within the Red Book Code of Practice.

Code of Practice

The Code of Practice is divided into three parts which logically follow each stage of a typical highways maintenance process and includes:

Part 1: Basic Principles

This begins by setting out the general responsibilities of the duty holders and the principles that must be applied, starting with the competence of everyone involved in the works.

The planning principle then explains that works should cause minimum inconvenience to road users and goes on to outline the need for:

- Highways authorities to coordinate works and for undertakers to cooperate with the authority and other undertakers
- Risk assessment by a competent person for planned works to determine traffic control layout and equipment needs etc.
- Liaison in advance with authorities or other statutory bodies to obtain the necessary licences, orders, or notices
- An emergency works plan that gives as much warning to road users as is reasonably practicable

Extending to 108 pages the Code of Practice acknowledges that it cannot give a definitive layout and working method for every roadworks situation that could arise, and states that a site-specific risk assessment should be performed at every site prior to work commencing, and as a key component of the planning phase. Risk-based decision-making is essential to keep both works and network users safe.

Those with responsibility for roadworks must consider the needs of pedestrians and vulnerable groups within their risk assessments when planning and conducting the works. If circumstances change at any time, then this should trigger a review of the risk assessment and the control measures.

Part 2: Operations

Before going to site – thoroughly checking the details of the work instructions to understand the nature of the location and type of work to be performed. This then allows the necessary equipment for signing, lighting, and guarding the worksite to be assembled.

At the work site – a review of the site-specific risk assessment should be made to make sure nothing significant has changed and that the equipment is going to be sufficient for the job and location. The Code of Practice gives a useful list of things to look at including:

- Characteristics of the road – width, visibility distances affected by bends, trees or parked vehicles or other traffic signalling in the vicinity etc.
- Vehicle types, flow and speed presence of cycle or bus lanes etc.

- Local environment – presence of busy premises and access restrictions
- Pedestrians – numbers, timing, children, those with walking difficulties, pushchairs, and mobility scooters etc.

Arriving on site – safe positioning and parking of vehicles that avoids obstructing footways, cycle routes and driveways to premises even while unloading equipment and signage etc. Ensuring works vehicles do not visibly block any traffic signs or signals, and that they use any roof mounted beacons fitted to their vehicles.

Advanced signing – signing of the works at a distance is the next operational activity to alert and inform the traffic of the roadworks they are about to encounter. In the rear of the Code of Practice is a table listing out the distances and sizes of signage to be deployed based on the type of carriageway and applicable speed limit.

Setting out the works – this is one of the most dangerous work activities for road workers and it is vital that the correct high visibility PPE is worn before exiting their vehicle and that they maintain a close watch on approaching traffic while the signage and other equipment is installed. The appropriate signs can then be placed in the correct sequence on firm level ground and positioned to maximise visibility, but without obstructing the footway. A minimum footway width of 1.5m should be maintained where possible, but there is an absolute minimum of 1m to allow the safe passage of pedestrians.

All signs, lighting, or guarding should be prevented from being blown over by the wind or passing traffic by some form of weighting, that in some cases will be integral to the design.

At the work site - cones and barriers can then be used to create a safety zone within which the working space exists and the specific works area e.g. an excavation. The working space should be large enough to accommodate equipment and materials for the task in hand and minimise the need for workers and their vehicles to regularly leave the protected area. Access to and egress from the work site should feature a tapering set of cones to guide drivers past the site rather than it start and end abruptly.

Where footways and pedestrian areas are affected by roadworks, the duty holder must make sure that pedestrians passing the works are safe. This means protecting them from both the works activities and passing traffic. The Code of Practice provides examples of how this can be done and the equipment that might be required.

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.

Usefully, the Code of Practice provides guidance on lane widths to accommodate 'normal traffic' including buses, HGVs, and roads that can be restricted to cars and light vehicles only. There is a further table that provides a range of passive or positive traffic control methods that can be used based on the traffic speed, length of coned off work site and traffic flow volumes.

However, 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 highway authority.

Traffic control should be planned, installed, and maintained by competent people. Historically, a guidance document produced by the Department for Transport titled 'An Introduction to the Use of Portable Vehicular Signals' (referred to as the 'Pink Book') was used for the purpose of setting industry standards. However, this has been withdrawn and superseded in the Autumn of 2023 with the publication of the Association for Road Traffic Safety and Management's⁶ (ARTSM) new 'Guidance for the Use of Portable Signals'.

Checking and maintaining sites – factors such as if the roadworks site is continually or only periodically attended, will determine the level of monitoring that is required (i.e. it should be risk-based). The Code of Practice stipulates that for an attended site it "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 work starts on an existing site
- Regularly during active work
- Before leaving site

For unattended sites there is a slight difference between Scotland and the rest of the UK, but broadly if there is traffic management in place these should be routinely checked and maintained at least once a day including at weekends.

Removing the works – site clearance. All plant, equipment and surplus materials should be 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 to minimise confusion.

Mobile works and short-duration work - mobile works are carried out from a vehicle moving significantly more slowly than the prevailing traffic speed and involve continuous mobile operations. They will include activities such as grass cutting, hedge cutting and weed spraying.

Whereas short-duration works involve a single vehicle or a small number of vehicles undertaking one or more intermittent stops of up to 15 minutes or between 15 – 60 minutes. These would be to enable activities such as

lighting maintenance, pothole repairs and jetting of drains etc.

Works involving stops that are expected to last more than 60 minutes (30 minutes in Scotland) must have the signing and guarding as for a fixed site.

All mobile and short duration works still need to be planned and risk assessed to determine if the specific circumstances warrant any additional signing, lighting, and guarding that is needed to ensure the safety of road users and operatives.

Once again, the Code of Practice gives some diagrammatic examples of how these works can be safely arranged.

Vehicles used for mobile and short duration works must be conspicuously marked and have one or more amber warning beacons such that at least one beacon can be seen from any direction. The beacons must be used for mobile works when the vehicle is travelling at less than the general speed of traffic. For short-duration static works, the beacons should always remain on.

A 'Keep right / left' sign must be displayed for drivers approaching the works on the same side of the carriageway, showing which side to pass.

Part 3: Equipment and Vehicles

This final part of the Code of Practice deals with the requirements for Personal Protective Equipment (PPE), and by reference to the relevant legislation and standards inc. TSRGD and the Traffic Signs Manual etc. it outlines the specification for:

- Traffic signs and cones
- Warning Lights
- Pedestrian barriers
- Footway ramps and boards
- Temporary covers over excavations
- Road plates and
- Vehicles

Conclusions

Roadworks undertaken on the public highway clearly have the potential for creating a dangerous situation for highway users and workers alike.

As with many work situations there are going to be conflicting pressures that are going to arise, and which need to be carefully considered and managed by duty holders. With roadworks the most obvious is the balance that must be struck between safety and the expectations of users and those relying on the network to maintain the flow of traffic.

So, it is reassuring to know that there is a sensible and well-constructed code of practice to help manage the risks and gain a consistent standard that drivers, pedestrians, and other highways users can recognise when confronted with roadworks.

However, this all relies on the competence, attitudes, and behaviours of the of the management and workers who make their risk-based decisions and perform these tasks to implement the Code of Practice consistently, and the willingness for the travelling public to comply.

References and Resources

1. Reported road casualties in Great Britain, provisional estimates: year ending June 2023
<https://www.gov.uk/government/statistics/reported-road-casualties-in-great-britain-provisional-estimates-year-ending-june-2023/reported-road-casualties-in-great-britain-provisional-estimates-year-ending-june-2023>
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5. The Traffic Signs Regulations and General Directions 2016
<https://www.legislation.gov.uk/uksi/2016/362/contents/made>
6. Guidance on the Use of Portable Signalling
<https://artsm.org.uk/sales/>

Further information

For access to further RMP Resources you may find helpful in reducing your organisation's cost of risk, please access the RMP Resources or RMP Articles pages on our website. To join the debate follow us on our LinkedIn page.

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