

# **Safe Working for Archaeologists as part of UK Construction Projects**

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**FAME** Advice for Archaeological Practitioners

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With special thanks to



The FAME Health and Safety Guides are produced by the FAME Health and Safety Working Group to provide advice to its members to foster safe systems of work for development-led archaeological practice. They are not designed to replace existing, detailed guidance available from the HSE and other bodies, and must always be used in conjunction with that guidance, clearly referenced in each guide, where applicable.

## **FAME Health and Safety Guide 4: Safe Working for Archaeologists as part of UK Construction Projects**

**Version 1, June 2024.**

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**Special thanks:** FAME is very grateful to Teresa Moss and Richard Wilson of National Highways for the role they played in the Raising the Bar group, and the advice they gave during the production of this paper.

## Key Note

Archaeological investigation is a specialist activity that is conducted in the UK both commercially and academically. Field-based commercial archaeology is often undertaken in advance of or alongside construction and the rules, regulations and approved codes of practice relevant to the construction industry can for the most part be readily applied to archaeology when carried out in a construction environment. Whilst the 'standard' methodologies, and many of the procedures and equipment used to ensure Health and Safety across the construction industry are applicable in an archaeological context, they may require additional risk assessment and adaptation to ensure that they are suitable and proportionate. Above all, the health and safety of those undertaking or affected by the activity must be considered holistically and must ensure that the high standards of archaeological investigation, recovery and recording required by UK planning legislation are delivered. The health, safety and wellbeing of all involved must remain the foremost concern. Where works cannot be completed safely without impacting the professional recording of the archaeological resource, alternative working methods should be implemented.

# 1 Introduction

This FAME guide is the result of a collaboration between National Highways and FAME, which arose in response to concerns raised during an initial meeting of the National Highways Archaeology Community Group in November 2020. It was agreed that guidance was needed to help both archaeologists and their clients (or clients' Principal Contractors) understand and respond appropriately to the H and S issues that are specific to field archaeology.

This Paper was originally conceived as a National Highways 'Raising the Bar' document<sup>1</sup>, but this proved not to be possible and so the document was reworked for publication by FAME. It is not intended as an exhaustive guide to undertaking archaeological fieldwork safely in a construction environment but focuses on a number of key areas where archaeologists face specific challenges.

## 2 Scope and objectives

This advice is relevant to all archaeological works providers and those who are responsible for the procurement of archaeological works and control (such as Principal Contractors).

Archaeological works cover a wide range of specialist activities that are carried out by technically skilled staff. Due to the meticulous and detailed methods required to recover and record archaeological remains the sectors activities are often necessarily labour intensive with a potentially large numbers of people physically interacting with their environment. As with any specialist activity, the standard Health and Safety methodology, procedures and equipment applied across the construction sector may be unsuitable and/or create further risks to individuals without adequate adaptation.

In this document we will look into five specific topics in which the specialist needs of archaeological investigations may vary from other sectors and how they can be adapted to both maintain a high standard

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<sup>1</sup> <https://www.highwaysafetyhub.com/raising-the-bar-guidance.html>

of health and safety on site, whilst completing investigations in an effective manner. These Topics are:

**Project set up and implementation**

**Contaminated land**

**Person/Plant interface**

**Managing the risk of musculoskeletal injury**

**Personal Protective Equipment**

Each section provides an overview, considers why archaeology might be different and any statutory or best practice guidance. It will then outline how risks might be managed. At the end of each section is a check as to what best practice should look like, which also allows the effectiveness of this document to be measured.

The five topics selected are not the only aspects in which the specialist needs of archaeological investigations may vary from other sectors, and the construction industry in general. Some others, for example managing the risk from buried utilities are covered in other FAME guides.

### 3 Legal, Guidance and Caveat

This document assumes a high level of technical competence in its readership and is designed to sit within the framework of legal statutes established by the **Health and Safety at Work etc Act 1974**<sup>2</sup> and any guidance, approved codes of practice (ACOP) or other recognised guidance by the Health and Safety Executive and specialist interest groups that are relevant. It should be noted that archaeology is not construction work and that **CDM 2015**<sup>3</sup> does not apply when taking place as a pre-construction activity.

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<sup>2</sup> <https://www.hse.gov.uk/legislation/hswa.htm>

<sup>3</sup> The Construction (Design and Management) Regulations 2015;  
<https://www.hse.gov.uk/construction/cdm/2015/index.htm>

Due to the limited scope of this document, it does not seek to cover all possible hazards, risks and mitigations associated with archaeological works and should be used in conjunction with other guidance (Section 9 – Legislation and Further Guidance).

Further to the above this document will not cover all eventuality and circumstances that may be encountered and must not be relied on to do so. For further advice please contact your internal or external competent source of health and safety advice.

## 4 Project Set Up and Implementation

### 4.1 Overview

Much of the work of archaeological investigation can be both transient in nature and occur prior to construction phase activities. As such, some parts of the site set-up and implementation are similar to other transient, pre-construction activities, for example, short-term roadworks or ecological investigations, rather than activities associated with the construction phase. There is often a marked difference in the health and safety regime and rules depending on whether the works have been categorised as falling within the construction phase, or the pre-construction phase. Whereas the majority of our work is categorised as pre-construction, it often takes place alongside, or immediately prior to the construction phase. Often in these cases, the implemented health and safety regime was not designed for pre-construction activities.

The pre-construction nature of much of our work can also bring associated issues relating to the life cycle of a project. Processes generally associated with the construction phase, such as utility searches and investigations into site contamination, may not have yet been completed or fully reported on before archaeological works are programmed to commence. This can either put our teams at increased risk or delay start dates.

### 4.2 Legal

Except where specific exemptions apply, such as those pertaining to CDM 2015, it is best practice that archaeological fieldwork follow the

same regulations and guidelines for the set-up and implementation of projects as any other legally compliant construction project (for further details see **Construction [Design and Management] Regulation 2015 – FAME advice for archaeological contractors<sup>4</sup>**).

### 4.3 Managing the Risks

In designing archaeological projects, the below provides a list of areas where proper planning and mitigation should occur prior to any archaeological investigation. Further, it should be noted that archaeological units, as a specialist contractor, may not have the in-house capability to competently implement a full construction site set-up and may require collaboration with other contractors.

Site Access – archaeological works usually require a similar access requirement as needed by other construction traffic to accommodate plant/equipment deliveries as well as safe access for operative in site vehicles.

Utility information – this should include a comprehensive search of all known services as well as information on any unmapped services put in place by previous landowners/tenants (in line with **PAS 128<sup>5</sup>** and/or **National Highways Raising the Bar – B9 Utility Avoidance<sup>6</sup>**). It is important to note that this should include services adjacent to the site and services that are due to be moved/removed during the construction phase.

Site Investigation/Geological Investigation (SI/GI) reports - as noted below (see 5 Contaminated Land) archaeologists physically interact with the site to a greater level than many other workers on site due to the labour-intensive methods of investigating archaeological remains. Therefore, reporting of GI/SI

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<sup>4</sup> <https://famearchaeology.co.uk/construction-design-and-management-regulations-2015-fame-guidance-for-archaeological-contractors/>

<sup>5</sup> <https://knowledge.bsigroup.com/products/pas-128-underground-utility-detection-verification-and-location-specification?version=standard>

<sup>6</sup>

[https://www.highwaysafetyhub.com/uploads/5/1/2/9/51294565/b9\\_utility\\_avoidance\\_april\\_2024.pdf](https://www.highwaysafetyhub.com/uploads/5/1/2/9/51294565/b9_utility_avoidance_april_2024.pdf)

investigations must be concluded before archaeological works commence and the impact of any contamination on the archaeological workforce considered and mitigated.

Fencing/security/Public Rights of Way – all need to be identified and considered prior to archaeological works being undertaken, as these works will often involve the creation of similar hazards to construction activities. It should be noted that, due to the transient nature of some archaeological activity and/or the large area covered by the work, it may make it impractical to physically fence the whole site in all circumstances.

Welfare and compounds – As noted above, archaeological investigations may be more transitory than the main construction works and this should be considered along with factors such as the number of operatives, duration and environmental conditions when specifying the provision of site welfare and compounds. For example, the planned duration of the works may suggest a less permanent compound such as mobile (“Groundhog”) welfare units, Heras style fencing and track matting, rather than plumbed cabins, hoardings and compounds created using compacted type 1 material. Additionally, consideration must be given to inclement weather and the potential need to drying rooms and separate hand washing facilities.

#### **4.4 Best Practice**

Best practice should include:

- an adequate amount of time to assess, research and collate information relating to the site, and plan works accordingly, prior to the start date for the archaeological investigations including sufficient time for mobilisation;
- all parties working together to produce the documents to ensure that the scope of the archaeological works are properly considered from inception (this will reduce the time taken for subsequent review and stand down time later in the process);



- accessible summary documents to be used by staff for site inductions;
- well indexed back up data that can be easily updated and reviewed as separate entities allowing for smooth document change management;
- well documented revision history of documents with key changes noted and briefed.

## **5 Contaminated Land**

### **5.1 Overview**

Archaeologists often come into close contact with the ground. The use of fine technical tools, particularly hand tools, and recording techniques which involve the close examination of the ground, increases likelihood of exposure and degree of exposure between archaeologists, their clothes and equipment and any potentially contaminated ground.

Further to this, the archaeological process requires that materials, sometimes in bulk such as soil samples, be removed from site for analysis by specialists, creating a risk that the excavator, processor and analyst of the material may be exposed to any contaminants contained within these samples.

In addition, disturbance of contaminated material, if it has not been properly identified in advance with mitigation measures put in place, may result in contamination being spread off from its original location by wind, within the air, mechanical means or during hand excavation, potentially creating further hazards.

### **5.2 Legal and guidance**

Due to the range of contaminants that may be typically encountered (both biological and chemical) there is no single guidance available. Many contaminants, such as Asbestos, Anthrax, Heavy Metals, Volatile Organic Compounds (VOCS), etc. may be covered by separate legislation

and/or specialist guidance including **COSHH<sup>7</sup>, Control of Asbestos Regulations 2012<sup>8</sup>, The Control of Lead at Work Regulations 2002<sup>9</sup>**, etc. In all cases specialist guidance should be sought from a suitably qualified contractor.

### 5.3 Managing the Risks

#### 5.3.1 Design Phase Considerations

The hazard of excavation in contaminated ground must be initially identified by the client at the design stage (or Principal/main contractor). Efforts must be made and works considered to eliminate or reduce excavation in contaminated ground wherever practical. Early collation of data and information on contamination must be undertaken, together with commissioning of relevant surveys.

Prior to any archaeological fieldwork being undertaken the client or their agent/main/Principal contractor must provide a report and information about site contamination (The Land Contamination Assessment) and communicate what steps they are taking to make the site safe. It is important that those commissioning archaeological works understand the differing risks of exposure between groundworkers, machine operators and archaeologists and that these risks are adequately recorded and mitigated. It should also be noted that a Land Contamination Assessment may focus on risks pertaining to the end use of the site and may not describe controls that are adequate for archaeologists. If in doubt, additional specialist advice must be sought.

Ideally, remediation of contaminated soils should precede archaeological works. However, in certain circumstances, particularly when remediation will damage archaeological deposits or finds prior to investigation and recording, close collaboration and co-operation with any remediation contractor appointed should be strongly considered. Such collaboration should be planned, and the remediation works

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<sup>7</sup> <https://www.hse.gov.uk/coshh/>

<sup>8</sup> <https://www.hse.gov.uk/pubns/books/l143.htm>

<sup>9</sup> <https://www.hse.gov.uk/pubns/books/l132.htm>

should allow sufficient time for the archaeological recording to take place as part of the works.

It must also be remembered that typically archaeologists are specialist contractors within their sector but may not necessarily have the knowledge, ability or equipment necessary to undertake works in such environments without additional training, supervision or equipment. Acquiring these additional skills, personnel or equipment may incur delays to the programme and/or increased costs.

### 5.3.2 On-site considerations

Based on the foreseeable risks provided prior to works all archaeologists should:

- on contaminated sites welfare must be of the highest standard. In particular warm running water to wash hands separate from both WC handwashing and handwashing/dishwashing to eat/drink;
- be in regular communication with any contaminated land specialists providing monitoring/logging of contaminants so that they may adapt their programme and processes;
- have access to monitoring for physical/mental health;
- empower and train staff to review risk assessments and raise any issues identified in a timely and safe manner;
- be trained to the correct level dependent on conditions (most commonly awareness level training) including safe excavation, storage/stockpiling and disposal of materials.

### 5.4 Best Practice

Best practice should include:

- prompt communication of pre-works information, including desk-based reports, identifying potential risks such as a Ground Investigation report;
- defined responsibilities when archaeologists are working in collaboration with remediation specialists or others;

- a site sampling regime and analysis to establish presence and extent;
- provision of guidance on the risks associated with identified contaminants;
- on site areas of site that are contaminated but are not part of the archaeological works to be fenced off;
- a clearly laid out separate document dealing with how the contaminants including defined substances, their effects, emergency actions, definition of controlled areas, PPE, equipment, welfare, and training/communication produced by a specialist contractor e.g. occupational hygienist, remediation contractor.

## 6 Personal Protective Equipment (PPE)

### 6.1 Overview

Archaeological fieldwork is a labour intensive and technically skilled process. It is carried out by highly trained individuals who physically engage with the environment within which they are working, often for long periods of time. Due to the nature of the work undertaken by archaeologists, inappropriately selected Personal Protective Equipment (PPE), can result in unintentional harm to the individual. Blanket PPE designations across a project, without full consideration of the activities being undertaken, carry this risk; those controlling sites should always assess the need for PPE based upon the specific risks and working conditions that will be encountered for that site.

An example:

In response to the perceived risk of a cable-strike, the Principal Contractor requires heavy-duty fire-resistant coveralls to be worn by everyone on site, without consideration of the processes and work undertaken by the individuals. The repeated physical exertion of archaeological excavation means that wearing this style of PPE, when it has not been adequately risk assessed to justify its need, can lead to issues such as heat exhaustion, fatigue and a potential increase in musculoskeletal injuries. This risk is significantly increased during periods of hot weather. If the site

has been properly investigated and mitigated, by the identification, demarcation and/or de-commissioning/diversion of any utilities prior to archaeological excavation, then the need for such PPE should not be necessary.

## 6.2 Legal and Guidance

If PPE is required, employers must ensure their workers have sufficient information, instruction, and training on the use of PPE (**Personal Protective Equipment at Work Regulations 2022**<sup>10</sup>). This includes all people contracted by the employer to work on a site.

Other standards state that when selected for use all PPE on any given project issued must:

- be issued to all staff that require it regardless of rank or grade;
- be issued free of charge;
- be replaced or repaired free of charge;
- conform to nationally recognised standards such as EN ISO / UKCA numbers.

Further to the above, PPE should conform to any standards set by the Client or their Main/Principal Contractor (in line with CDM 2015 12(2)). For example, Highways England 2016 **Raising the bar 31 – Safety helmet colours**<sup>11</sup>.

## 6.3 Managing the Risks

PPE is the last line of defence after the elimination of hazards or other control measures have been considered. The need for PPE should be carefully matched to the requirements of the situation, rather than automatically specified across a scheme.

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<sup>10</sup> <https://www.hse.gov.uk/ppe/ppe-regulations-2022.htm>

<sup>11</sup>

[https://assets.publishing.service.gov.uk/media/5a8185dbe5274a2e8ab5471f/B31\\_Safety\\_Helmet\\_Colours\\_Sept\\_16\\_V2.pdf](https://assets.publishing.service.gov.uk/media/5a8185dbe5274a2e8ab5471f/B31_Safety_Helmet_Colours_Sept_16_V2.pdf)

### **6.3.1 Design phase consideration**

During the initial design and planning phase of a given project it is essential that an assessment is made of the existing hazards, risks, and any mitigation already in place, as well as all foreseeable hazards and risks created by the works to be undertaken. Once this assessment has occurred, and the hierarchy of controls applied, with the majority of risks mitigated, a judgement should be made determining the initial selection of PPE. While this is the right and appropriate basis from which to start this selection, it must never be “set in stone”. Those involved must acknowledge that situations often change, and PPE selected during the planning phase should be reviewable. For example, delayed start dates may mean that a project initially programmed to be undertaken in the cooler wetter winter months may actually take place in summer, or vice versa.

### **6.3.2 Site/Task Specific Risk Assessment**

During the initial set-up phase, and throughout a project, any PPE previously specified should be reviewed and adapted to the physical conditions and specific risks encountered by the archaeologists. This may also be the case for smaller sub-sections of any given project such as specific sites, areas, or tasks, taking into account any interactions operatives may have with works in other areas. Thus, the PPE component of any dynamic risk assessment must also be dynamic.

### **6.3.3 Compliance and Worker Engagement**

Project wide PPE selections are often made to aid inspections, by creating uniformity. They also serve to avoid accusations of unfairness from one team of contractors to another. Therefore, it is crucial that all operatives, including those responsible for ensuring compliance, should be briefed on differences in PPE selection that they may encounter on site and the reasoning behind these choices. This process is designed to create understanding and engagement and may serve as an opportunity to consult and highlight suggestions for continual improvements across the entire project team.

### **6.3.4 Consideration of the User**

Ergonomics must be a key consideration in the selection of PPE, as this will encourage the user to wear it. It is recommended that consultation with, and feedback from, your teams is undertaken when choosing a

consistent range of suitable, comfortable, and correctly fitting PPE. Uncomfortable and ill-fitting PPE can restrict movement, create distraction and unnecessary conflict as well as hazards reducing its efficacy. There is a broad spectrum of people working in fieldwork today and the days of one size fits all is no longer appropriate; there should be an onus on companies to make every effort at sourcing a broad selection of sizes and fits of PPE for their employees.

#### 6.4 Best Practice

Best practice should include:

- a detailed PPE plan that clearly understands and also assesses the risks of work undertaken by archaeologists and how the use of PPE might impact negatively on operatives undertaking work (this should be produced well in advance of site works to allow for procurement and discussion and be reviewable and adaptable to changing circumstances);
- clear guidance and training for all PPE users with an emphasis on reporting increases in risk from no longer appropriate PPE due to changes on site, e.g. weather, tasks, temperature, ground conditions;
- clearly communicated lists of identified risks and circumstances when required/optional PPE needs to be used;
- recycling or reuse plans for PPE with regard to reducing operating costs and environmental impact.

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In as much as possible employers should strive to be bound to an ethical and environmental commitment to the recycling of PPE such as wet gear, wellingtons etc.

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## 7 People/Plant Interface

### 7.1 Overview

The precise location, nature, and depth of buried archaeological features are only ascertained during the excavation process. Archaeology therefore takes place in a changing environment, and this can impact on the way that people access and move around the site. Archaeology often takes place at an early stage within a project lifecycle, prior to planning consent or during before/during enabling works. It can also take place in an isolated and rural environment with difficult access conditions.

Mechanical plant is invariably used to strip the site to archaeological levels. Throughout this process designated and suitably competent archaeologists will monitor the excavation plant. They will instruct the operator to ensure that the correct depths are reached and that archaeological remains are not damaged. There may be other occasions where mechanical plant is brought onto site and used to remove soil as part of the ongoing excavation process.

Most critically, archaeologists will regularly need to inspect the exposed excavation surface which means they have to enter the arc area of the machine (Red-Zone), and therefore clear lines of communication with the plant operator and understanding of the procedures to safely do so are needed to ensure the safety of those involved.

### 7.2 Legal and guidance

Due to the high-risk nature of people/plant interactions standard guidance and requirements are available from a range of sources, for example, CDM 2015 and National Highways Raising the Bar Document **B3 – Plant Person Interface**<sup>12</sup>. A number of training options are also available ranging from onsite Red-Zone training to certified Plant Marshal / Banks Person courses. Based on risk assessments, it is the

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<sup>12</sup>

[https://www.highwaysafetyhub.com/uploads/5/1/2/9/51294565/b3\\_plant\\_person\\_interface\\_march\\_2021.pdf](https://www.highwaysafetyhub.com/uploads/5/1/2/9/51294565/b3_plant_person_interface_march_2021.pdf)



duty of the archaeological contractor to establish the appropriate level of training required.

### **7.3 Managing the Risks**

#### **7.3.1 Design phase consideration and traffic management plan**

The design phase must consider how archaeologists will be using and interacting with mechanical plant to undertake their works and how they will interact with other contractors who will be using plant and other vehicles on the site.

Within the archaeological area/s, the traffic management plan should establish how the plant working area and plant routes/movements will be segregated (including the choice of fencing or other forms of control) from others, particularly pedestrians, working on the site.

#### **7.3.2 Onsite Considerations**

Communication between the archaeological team and others on site must be maintained to understand each other's working methods and how the site will change through time, including measures for liaison during works to update on changes as site works progress and to ensure dynamic risk assessment.

#### **7.3.3 Consideration of how archaeologists will be using plant to undertake their works and how they will interact with other contractors who will be using plant and travelling around the site.**

Particular consideration should be given to how archaeologists will be protected from contact with plant working in the vicinity of the archaeological excavation, especially in deep excavations or where there is limited space.

#### **7.3.4 Within the archaeological area/s, how the plant working area and plant movements will be segregated from other archaeologists working on the site.**

Any methods of fencing and demarcation should be suitable and appropriate for the type of segregation required.

Where it is not possible to physically segregate the area, then a specific safe system of work needs to be developed and signed off by a senior person at site director level, or equivalent. This would be the case

where, for example, multiple evaluation trench locations make defined plant/pedestrian routes impracticable. In this situation a banksman should attend (*i.e.* walk in front of) all moving plant to ensure that the route is clear of pedestrians.

Plant operators and archaeologists are required to work closely together. plant operators should be suitably experienced and competent at the type of excavation work required.

Only designated persons who are suitably experienced and competent are permitted to enter the red-zone. Those supervising plant must only enter the plant red-zone having communicated their intentions and having received acknowledgement of them from the plant operator, who must place the bucket on the ground and stop the engine before the plant supervisor enters the red zone.

Plant working areas should be designed so that they do not cause a danger to the health or safety of people working near them. In addition to avoiding physical contact between plant and persons, such planning also needs to consider dust, fumes, and noise.

#### **7.4 Best Practice**

Best practice should include:

- clear lines of communication to ensure situational awareness in an ever-changing environment;
- the ability of those involved to monitor and update dynamic risk assessments should something change;
- a clear understanding of the way that archaeologists use plant and the differing risks and mitigations including training and physical separation;
- regular briefings (toolbox talks) to ensure that all staff on site remain aware of the risks of plant/pedestrian interfaces.

## 8 Managing the Risk of Musculoskeletal Injury

### 8.1 Overview

As noted above the process of investigating archaeological remains is a labour-intensive process which is often undertaken in restricted spaces and adverse environmental conditions. Typically, tasks are repetitive and can readily involve moving unusually shaped/unbalanced loads of unknown weight, for example soils with a variable water content. Whilst overall the types of tasks are predictable, archaeologists use a wide range of tools and techniques meaning that the effects of changing from shovelling to lifting to a range of necessary postures and undertaking sensitive excavation need to be carefully considered. These effects can be exacerbated by environmental conditions and/or PPE requirements. Similarly, the range of materials encountered in archaeology, from clay to sand and compact gravel, present different issues in relation to manual tasks that need to be understood and appropriately mitigated.

### 8.2 Legal and Guidance

Employers must protect their workers from the risk of injury from hazardous manual handling in the workplace. Manual handling means transporting or supporting a load by hand or bodily force. It includes lifting, putting down, pushing, pulling, carrying or moving loads. This is done using the hierarchy of controls, typically including:

- avoiding hazardous manual handling wherever possible;
- conducting risk assessments and implementing mitigation of manual handling risks;
- using mechanical means to transport materials and remove bulk deposits where possible;
- training operatives in best practice including the use of tools and best techniques.

## 8.3 Managing the Risks

### 8.3.1 Design phase consideration

Prior to work commencing on site consideration must be made for the following points:

The site must be organised in a way that reduces risk. Access for vehicles and mechanical means to transport, minimise barrowing routes in made ground, eliminate unnecessary sample removal, etc.

Mechanical Aids – the use of plant or other mechanical aids to remove the need for manual handling. For example, the use of 360 excavators or spoil conveyers.

Geology/environmental conditions – this is often a significant factor in the likelihood of poor manual handling resulting in injuries. For example, knowing that a site is being investigated during the winter months and that the soil makeup is predominately clay should be considered and mitigated.

Selection of equipment – tools and PPE selected to mitigate other hazards or selected due to other preferences may increase the risk of manual handling injuries arising. For example, a short-handled shovel may create a greater risk of injuries due to stooping and twisting whereas long handling shovel may not. Conversely presenting operatives with tools they are unfamiliar with (or which present other issues such as the difficulty gripping insulated tools experienced by many) will likely carry similar risks of injury, even if the tool is considered “better” for the process.

Training and Supervision – all operatives must be given sufficient manual handling training, supervision and information prior to deployment on-site.

### 8.3.2 Onsite Considerations

During a project, emphasis should be on continuing to provide operatives with ongoing training, supervision and information. This should include, daily briefings, performing dynamic risk assessment (prior to every shift), ensuring sufficient monitoring, task rotation, etc. Operatives should be empowered to adapt processes where reasonably practical in line with best practice.

## 8.4 Best Practice

Best practice should include:

- well informed trained staff;
- organisation of the site in such a way to reduce handling risks;
- use of mechanical alternatives to manual tasks;
- use of aids to transport heavy materials;
- pre and post shift stretching or 'warm-up/down' sessions;
- 'Fit to start' and 'fit to stop' beginning and end of day briefings, to identify and manage niggles early.

## 9 Legislation and Further Guidance

[Avoiding danger from overhead power lines Guidance Note GS6 \(Fourth edition, 2013\)](#)

[Avoiding danger from underground services HSG47 \(Third Edition, 2014\)](#)

[Control of Asbestos Regulations \(2012\)](#)

[Construction \(Design and Management\) Regulations \(2015\)](#)

[The Control of Lead at Work Regulations \(2002\)](#)

[Control of Substances Hazardous to Health Regulations \(2002\)](#)

[Health and Safety at Work Act \(1974\)](#)

[Management of Health and Safety at Work Regulations \(1999\)](#)

[Manual Handling Operations Regulations \(1992\)](#)

[National Highways Raising the Bar – B9 Utility Avoidance](#)

[National Highways Raising the Bar – B3 Plant Person Interface](#)

[Personal Protective Equipment at Work Regulations \(2022\)](#)

[Personal Protective Equipment at Work \(4<sup>th</sup> edition\) L25 \(2022\)](#)

[The Safe Use of Vehicles on Construction Sites HSG144 \(2009\)](#)

**Websites**

<https://www.hse.gov.uk/index.htm>

<https://www.highwaysafetyhub.com/raising-the-bar-guidance.html>

<https://famearchaeology.co.uk/what-we-do/health-and-safety/>

**FAME Health and Safety Guides**

[Construction \(Design and Management\) Regulations 2015 \(2020\)](#)

[Safe Working Around Utilities \(UK\) \(2021\)](#)

[Near-Miss Reporting \(2022\)](#)

[Medication Side-Effects: Heat and Sun Sensitivity \(2023\)](#)