

University of Greenwich

**Safety, Health and Environmental Requirements for
Contractors**

Version 4: October 2017



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1 Introduction

By law, employers have a duty of care under the Health and Safety at Work etc. Act 1974 to ensure that the workplace is safe and healthy. In addition employees also have a duty of care to protect themselves, colleagues and others who may be affected by their acts or omissions.

All contractors working for the University of Greenwich (UOG) are expected, as a minimum, to employ a level of compliance equal to that required under the Health and Safety at Work Etc. Act 1974, the Management of Health and Safety at Work Regulations 1999, the Environment Act 1995 and the Construction (Design and Management) Regulations 2015 (CDM).

As legal duties cannot be delegated by contract, it is the Contractor's responsibility to demonstrate compliance, establish safe systems of work prior to any works commencing and, where requested, provide evidence of this.

Although employers may have manuals, rules and systems in place, there is no substitute for the person who thinks and acts safely. Therefore, it is essential that all persons working on UOG premises, or planning works to be undertaken thereon, are familiar with this handbook.

2 Key Aims of Contractor Management

- Ensuring the safety of students, staff, visitors, contractors' operatives and members of the public
- Improving the planning and management of work from the very start
- Identifying hazards early on, so they can be eliminated or reduced – ideally at design stage
- Properly manage any remaining risks
- Targeting effort where it can do the most good in terms of health and safety and environmental considerations, whilst discouraging unnecessary bureaucracy.
- Reducing delays
- Improving communication and co-operation between key parties

3 Application of this Document

All references to 'Contractor' hereafter refer to Contractors, Principal Contractors, Suppliers and Consultants who have a direct contract with the University and any subcontractor tasked to meet the requirement of that contract. The contents of this document should be seen as forming a material part of the terms and conditions of any agreement or Purchase Order between the Contractor and the University.

This document has been produced to provide specific details of the environmental, health and safety arrangements expected from those working as contractors on University of Greenwich premises. The University requires all Contractors to make their operatives aware of these values and expectations.

Contractors shall co-operate with the University representatives in ensuring compliance with the arrangements detailed within this document. However, compliance does not in any way relieve the Contractor of his legal or contractual obligations.

All Contractors and their operatives should be conversant with any specific legislative requirements, best practice and industry standards, contractual terms and conditions and University Policy and Management Procedures relating to the department or area in which they are working, e.g. in laboratory areas/workshops, as given at induction or as information sent to contractor.

If during the works or planning of the works it becomes apparent that deviations from these arrangements are necessary, this shall only be with prior consultation and agreement of the EFD Safety & Compliance Manager or the University Safety Unit.

4 Significant Hazards

The University provides a learning and research environment for over 20,000 students and 2000 staff. Contractors should recognise the unique challenges associated with the University environment: The premises is comprised of three campuses, with approximately 70 occupied buildings of which many have listed status.

It is essential that contractors consider the following significant issues in order to reduce the level of risk:

- Need for continuity of services – as an educational and research establishment, minimum impact methodologies are required
- High volumes of pedestrian traffic in some specific areas; Some of whom may have visual, hearing and/or mobility impairment.
- Potential for encountering asbestos containing materials (ACMs) within buildings constructed prior to the year 2000
- Continuity of existing fire alarm and detection/emergency lighting/security systems/fire compartments and reducing false alarms
- Maintenance of existing fire escapes, accessibility routes and entry points. Note: access for emergency vehicles must be maintained at all times
- Potential for contact with live services (including live redundant services). This includes services leading to and within equipment, e.g. capacitors and buried services
- Identification of current building services, the limitations, vulnerabilities and possible knock-on effects of undertaking isolations/works
- Potential for contact with biological, radiological and chemical agents – particular consideration should be given to encountering residues within sinks, waste traps, benching, finishes and waste pipes located above suspended ceilings
- Laboratory and workshop processes
- Work within confined spaces and at height e.g. underground service ducts, roof works
- Environmental considerations – hazardous waste including that within redundant equipment

Note: the above list should be seen as indicative and not exhaustive.

4.1 Construction Related Objectives

Contractors are required to assist the University in achieving its health, safety and environmental goals by complying with statutory requirements and adopting recognised industry standards with the following aims:

- Zero fatalities and major injuries as prescribed under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)
- To have 50% fewer injuries than the industry average as detailed within the current HSE statistics
- To prevent unauthorised persons, most notably students and children, from gaining entry to construction sites
- To highlight buildability issues associated with the design to the University Representative, Designers including the Principal Designer (where appointed) which pose an increased risk, so that alternative solutions can be identified
- To provide safe access to and egress from each place of work for both operatives and vehicles
- To reduce the risk of traffic-related incidents during construction, maintenance and use
- To provide operating conditions so that the use of energy, water and materials is as efficient as possible and the lowest reasonably practicable levels of noise, vibration, dust and odour are generated whilst on site.
- To provide evidence of recycling rates and be able to demonstrate that site waste management plans are in place and being proactively monitored and supported.
- To ensure that all accidents, incidents and near-misses are formally reported

- using the University reporting system and are investigated
- To avoid environmental damage and take immediate action to remedy any adverse environmental incidents that may occur
- To have effective methods in place for tracking and reporting waste movements from sites

Where works fall under the CDM regulations, details of any site specific ‘significant risks’ will be highlighted during the tender stage or included within the pre-construction information, issued by the University of Greenwich, to each designer (including the Principal Designer) and contractor (including the Principal Contractor). This will, where feasible, include details of adjacent or simultaneously scheduled construction projects.

Where works do not fall under the CDM Regulations the University Representative will ensure that ‘significant’ risks originating from the estate or processes are highlighted to the contractor.

Contractors must also be aware that they will be working in occupied premises with teaching and research activity potentially in progress. Whilst every effort will be made to afford access to areas, allowances will have to be made for work and teaching to proceed without undue disruption. As such, the following restrictions apply;

- University examinations shall take precedence over works, unless deemed safety critical.
- Access and works restrictions may be applied during key activities such as graduation ceremonies, open days, conferences, summer schools and other events as deemed necessary by the University. (Information can be gained from the University Representative)
- Contractors must not enter occupied areas or living accommodation such as student bedrooms without the express permission of the Estates Representative and/or relevant Accommodation Manager. Typically a minimum of 48 hours' notice is required.
- Contractor's operatives are strictly forbidden from accessing areas (other than public areas) that are outside their working boundaries without the prior written agreement of the University Representative

The University reserves the right to stop any or all works, or request the removal of any operative from site for breach of these requirements or other unacceptable behaviours.

ARRANGEMENTS

5 Prior to Commencement of Works

No contractor will be permitted to commence work without having demonstrated:

- Competence of all persons involved with the works
- Suitable and sufficient risk assessments / method statements are in place
- Site specific inductions are complete
- Where applicable, all appointments required under the CDM regulations have been made.

5.1 Competence

It is University policy to employ and engage only competent persons to undertake work on UOG premises. Therefore Contractors competencies will be checked prior to appointment and at periodic intervals thereafter.

As part of these checks, all Contractors will be required to complete and return a Questionnaire to the University for review and assessment. The completed forms must be submitted together with all supporting evidence, as requested.

Contractors that participate in a formal tendering process, will be required to submit their initial evidence of competence via the In-Tend e-tendering portal. Where registration can be demonstrated with **both** the SSIP Approved Membership scheme (confirmed as ‘deemed to satisfy’ in relevant skill sets) **and** ConstructionLine (verified status), documents do not need to be uploaded to In-Tend.

In some circumstances the University Representative, in consultation with the EFD Safety & Compliance Manager and or the Safety Unit, may relax the need for SSIP / ConstructionLine membership.

More information about these schemes can be obtained at wwwSSIP.org.uk and www.constructionline.co.uk respectively.

In addition to general information provided via the procurement process, Contractors appointed by the University are required to provide site and task specific evidence of their respective competence to their University representative.

This evidence must be of sufficient detail to assure that:

- A competent employee, of suitable experience and training is designated as the site manager where more than two persons are on site. This individual or an approved deputy should always be present on-site in order to supervise and direct the works and to receive and implement instructions from the University. Details of the Contractor's site management structure must be presented to the University representative or project manager at the initial briefing stage. Any changes in the Contractor's site management structure must be communicated to the University representative as soon as the changes occur.
- Where the works are notifiable under CDM, the site manager must be able to evidence competence e.g. successful completion of the Site Managers Safety Training Scheme (CITB SMSTS) or similar. (Dispensation may be given to this particular requirement dependent upon the nature of the work. This would need consultation from the University Safety Unit or EFD Safety & Compliance Manager)
- Operatives (and those of any subcontractor employed) are adequately trained and experienced to carry out their work safely. The Contractor will be required to retain copies of training certificates and qualifications of their operatives and sub-contractors' operatives in order to demonstrate their competence when requested. This may include trade skills cards such as CSCS, CCDO for demolition operatives, CISRS for scaffolders and PAL and CPCS for plant operators. (Details of available competence cards can be found at www.citb.org.uk.)
- Those specific hazards likely to be experienced, whether notified or discovered, are brought to the attention of the workforce, together with any precautions to be taken and any specific safety rules of the department or area in which they are working, e.g. in laboratory areas/workshops. Details of local site induction training carried by the Contractor for their operatives and sub-contractors must also be retained.
- Contractors will be required to demonstrate how they select sub-contractors and will need to retain evidence of their Sub-Contractor competency checks and selection process for audit purposes. Such information must be made available to the University representative upon request.

Evidence will be periodically reviewed to ensure it remains valid and sufficient to demonstrate ongoing competence. This may require submission of updated documentation to the University.

Please note that failure to produce the required evidence, when requested, will result in an "unacceptable" outcome.

5.2 Risk Assessments and Method Statements

Contractors are responsible for all aspects of health and safety and environmental impacts in connection with their work on site, including assessment of the risks to their employees and persons who might be affected by their acts or omissions whilst working on the University premises.

To this end, Contractors are required to have in place current policies and procedural documents which detail arrangements for managing health and safety and environmental impacts throughout the duration of their work on site, including submission of suitable risk assessments and method statements (RAMS).

These management responsibilities also cover all sub-contracted activities. Main Contractors will, therefore, be required to ensure adequate arrangements are made by Sub-Contractors for ensuring the health and safety of those affected by their work.

Site and task specific RAMS should be prepared by a competent person and include consideration for all working activities, e.g. working at heights, working with electricity or with hazardous substances, emissions to ground, air and water, etc. Information on inherent UOG site hazards or project specific risk(s) must be obtained from the University Representative and also addressed within the RAMS.

Contractors are required to prepare and submit the RAMS for all works undertaken on University premises, at least 5 days before the intended start on site (where the proposed work is **not** part of an emergency repair or remedial work). This pre-requisite will be necessary to enable the University representative to review and ensure that:

- The project is effectively coordinated with campus activities, including preparation of Authority to Work / Permit to Work as relevant
- Necessary pre-construction information is supplied, where it is available
- Risks to staff, students, visitors, buildings and operations are being effectively managed
- There is compliance with this policy, the contents of the Risk Assessment(s) and Method Statement(s).

Whilst comment on the technical content of the Contractor's Method Statement(s) may be given by the University, responsibility for safe methods of work remains with the Contractor.

Operatives must have signed to acknowledge that they have read and understood any applicable policies, procedures, and RAMS; Copies of which should be easily and readily accessible on site during the works, for consultation in the event of any query.

NOTE: For works that are defined as coming under the CDM Regulations, the RAMS will usually form part of the Construction Phase Plan, which must be submitted to the University Representative or Principal Designer (where appointed) for review on behalf of the University.

5.3 Site Specific Induction

Most accidents occur during the first few days on new premises. This is often because those affected are unfamiliar with their new working environment and its associated hazards. To prevent this from occurring on University premises, the University ask all contractors to complete a two-step induction process:

Prior to arrival at site, all contractors must provide evidence that the requirements in this document have been read and understood, with relevant information passed to sub-contractors.

Upon first arrival, all contractors must complete a site specific induction with an Estates & Facilities Representative. The main purpose of such training is to raise aware awareness of the following:

- University Health and Safety Policy, Sustainability Policy and all applicable Procedures/Codes of Practice.
- Emergency arrangements and facilities provided.
- First-Aid arrangements.
- Any significant hazards on the premises.
- Any task specific risk.
- Correct lines of communication.
- Details of other health and safety documents and procedures that need to be followed whilst working on University premises

Contractors are required to refresh the induction training session every twelve months. On successful completion they will be issued with a Contractors Identity Card, which must be shown at each visit to site.

5.4 CDM Requirements

a) Notifiable Projects

A notifiable project, as defined under the Construction (Design and Management) Regulations 2015 is one which either:

- a) lasts longer than 30 working days and has more than 20 workers working simultaneously at any point in the project; or
- b) exceeds 500 person days.

The University Representative must be in possession of a Statement of Adequacy issued by the Principal Designer, confirming that the Construction Phase Plan is suitably and sufficiently developed, in accordance with the Regulation 12 of the CDM Regulations, to permit initial construction activities to commence on a notifiable project.

b) Designers

In addition to the general contractor principles set out in this document, the University recognises that the appointment of designers may also be required under the CDM regulations.

To assist the University in fulfilling its duties in this regard, the below responsibilities should be noted by relevant parties.

Principal Designers, when appointed, are required to:

- Plan, manage and monitor the pre-construction phase and coordinate matters relating to health and safety during the pre-construction phase to ensure that, so far as is reasonably practicable, the project is carried out without risks to health or safety.
- Ensure that design, technical and organisational aspects are decided in order to plan the various items or stages of work which are to take place simultaneously or in succession; and estimate the period of time required to complete such work or work stages.
- Take into account the general principles of prevention and, where relevant, the content of any construction phase plan and any health and safety file.
- Identify and eliminate or control, so far as is reasonably practicable, foreseeable risks to the health or safety of any person carrying out or liable to be affected by construction work, maintaining or cleaning a structure; or using a structure designed as a workplace.
- Ensure all designers comply with their duties in regulation 9 of CDM Regulations 2015
- Fulfil the duty to coordinate health and safety matters by ensuring that all persons working in relation to the pre-construction phase cooperate with the client, the principal designer and each other.
- Assist the client in the provision of the pre-construction information and as so far as it is within the principal designer's control, provide pre-construction information, promptly and in a convenient form, to every designer and contractor appointed, or being considered for appointment, to the project.
- Liaise with the principal contractor for the duration of the principal designer's appointment and share with the principal contractor information relevant to the planning, management and monitoring of the construction phase and the coordination of health and safety matters during the construction phase.

Designers are in a unique position to reduce the risks that arise during construction work. Designs develop from initial concepts through to a detailed specification, often involving different people at various stages. At each stage, designers from all disciplines can make a significant contribution by identifying and eliminating hazards, and reducing likely risks from hazards where elimination is not possible. Whilst designers are encouraged to be creative and innovative, they must:

- Take into account the general principles of prevention and any pre-construction information to eliminate, so far as is reasonably practicable, foreseeable health and safety or environmental risks.
- If it is not possible to eliminate these risks, must, so far as is reasonably practicable, take steps to reduce or, if that is not possible, control the risks through the subsequent design process and provide information about those risks to the principal designer.
- Record the details of those significant risks which remain within 'tender', 'construction', 'as-built' drawings, access for maintenance strategies and / or the

- Health and Safety File and bring them to the attention of the Estates and Facilities Directorate, Estates Compliance Manager and Principal Designer (where appointed). This includes any design decisions which significantly increase or decrease the risk to health, safety or the environment.
- Take all reasonable steps to provide, sufficient information about the design, construction or maintenance of the structure, to adequately assist the client, other designers and contractors to comply with their duties under the CDM Regulations.
 - Ensure minimal impact on the University's functions and maintenance of business continuity as a result of design decisions taken without the prior acceptance of the University Representative.
 - Provide safe access to, in and around, and egress from the buildings for both pedestrians and vehicles (including emergency vehicles) whilst avoiding the need for vehicles to manoeuvre, reverse or traverse pedestrian areas; Formally highlight to the University Representative and Principal Designer (where appointed) any significant rise in risk as a result of value engineering exercises.
 - Reduce waste levels through design and good practice, aiming to maximise the re-use of materials and maximising the specification of recyclable materials.
 - Seek to reduce energy consumption, whilst providing opportunities to monitor energy consumption.
 - Take measures designed to reduce the risk of Legionella
 - Provide information in a timely manner to the Principal Designer (where appointed) for inclusion within health and safety files, fire manuals and O&M Manuals
 - Apply whole life costing to procurement decisions and use sustainable procurement routes likely to encourage sound design and high standards of safety, health and well-being.

5.5 Disclosure and Barring checks (DBS)

The University may require Contractors to have DBS Checks where it is foreseeable that their work could give them unsupervised contact with children or vulnerable adults. Although rarely necessary, the requirement for DBS Checks will be included in tender documents and brought to the attention of the Contractor via the University Representative.

6 During Works / Activities

6.1 Access arrangements

a) Parking and Getting to Site

Arrangements differ between the campuses.

Information on how to get to our sites, including the parking arrangements, can be accessed online at: <http://www.gre.ac.uk/about/travel>

b) Signing In and Out of Site

All contractors must sign-in and sign-out daily at the Campus Estates & Facilities Office, where the EFD Representative will advise of additional induction requirements, local hazards and precautions and issue any applicable permits/checklist.

c) Out of Hours Access

Most of the University's buildings are open between 9:00am and 5:00pm weekdays. Requests for works falling outside of these hours must be completed at least 72 hours in advance of the need, so that security staff can be mobilised.

In the event of the Contractor's staff failing to work in buildings for which security has been arranged, the contractor will be liable for any abortive costs of security cover. Only in the event of emergencies and unforeseen events will the 72 hours' notice requirement be waived. The Contractor is to ensure that a responsible person, i.e. the supervisor, is on site and available to deal with any problems which may arise during the out of hours working.

If works are due to commence outside of office hours, arrangements will have to be made for the initial / induction meeting with the EFD Representative to be undertaken prior to the works commencing.

In the case of “out of hours working” contractors will sign-in/out at the Campus Estates and Facilities Office for the normal part of their working day and will sign-in/out at the Security Gatehouse for the “Out of hours” part of the day.

d) Issuing of Keys

Keys and other means of access can be issued to Contractors where a clear need is identified. The arrangements for issuing of keys will be made via the Campus EFD office. If these keys are lost, locks will need to be changed and new keys issued. Consequently, the Contractor may be charged the cost of resulting works.

Contractors must return all keys/fobs to the Campus EFD Office on completion of works, or by the end of the working day. Any requirements for retaining keys overnight or for a period must be agreed with the Campus Manager prior to commencement of works.

6.2 Permits to Work

During the review of submitted RAMS, the University will determine which of the following categories of risk are applicable to the works and therefore, whether any permits to work are required

a) Low Risk Works

For jobs that are defined as low risk and lasting less than 12 hours in one area, identification of control measures via a suitable and sufficient risk assessment is considered adequate and no specific permit is required.

b) Medium Risk Works

All works lasting more than 12 hours in one area, or less if defined as medium risk, will be subject to a General Permit to Work. Examples of works defined as medium risk include:

- Work requiring local isolation of electrical supply, gas, steam or water supplies
- Storage of flammable fuels, oils or other hazardous substances in greater quantities than 25 litres
- Short duration works in tunnels and loft spaces
- Work at height requiring scaffolding, towers, cradles or abseiling
- Erecting/dismantling of scaffolds
- Works involving the generation of large quantities of dust and/or noise
- Manoeuvring site vehicles in pedestrian areas
- Works/ activities affecting emergency escape routes in occupied buildings

c) High Risk / Specific Works

Examples of the activities likely to require a high risk / specific permit include;

- Any activity requiring a source of radioactivity or explosive substances
- Asbestos removal or works likely to disturb asbestos containing materials
- Working at height requiring use of cranes or where there is no permanent edge protection
- High voltage works, live electrical work or works in electrical sub-stations
- Demolition
- Confined spaces, including Excavations**
- Hot works
- Work in Laboratories and other restricted Areas – such as server rooms
- Isolation of services, the fire alarm system or life safety systems, including any work likely to cause smoke, dust or fume vapours, which could affect personnel or activate smoke/heat detectors

**Defined in the Confined Spaces Regulations as having two defining features. Firstly, it is a place which is substantially (though not always entirely) enclosed and, secondly, there will be a reasonably foreseeable risk of serious injury.

Contractors should be aware that some of the **High Risk permits to work can only be issued by specialist members of staff**, and may be subject to extended lead in times/consultation to ensure the arrangements made. **This is particularly relevant should isolation of services be envisaged.**

d) Construction Phase Plan

The University acknowledges that some contractor and / or maintenance work may be considered construction work in accordance with the Construction (Design and Management) Regulations 2015.

All construction work under CDM 2015 requires planning. For smaller jobs, this plan should be simple, short and proportionate to the risks. Therefore, where there is only one contractor (i.e. no Principal Contractor (PC) or Principal Designer (PD) appointment) a simple construction phase plan should suffice, supported by applicable permits for the duration of the works.

If more contractors are brought in (not all contractors need to be on site at the same time), then a PC and PD need to be appointed for that particular project and works planned accordingly. If the job will last longer than 500 person days or 30 working days (with more than 20 people working at the same time) it will need to be notified to HSE and it is likely to require a more detailed construction phase plan, including multiple risk assessments and permits as appropriate to the works (See also [CDM Guidance](#))

6.3 Asbestos

The use of asbestos containing materials (ACMs) was banned in the UK in 1999. **This means any building built or refurbished before the year 2000 could contain asbestos.** Therefore prior to starting work on any University building predating the year 2000, where there is a likelihood of disturbing the fabric of the building, the Contractor must obtain details of any known ACM as listed in the University's most recent Asbestos Survey. Under no circumstances is verbal communication on asbestos findings acceptable even when no asbestos is present – proof of the absence of ACMs is still required. Reference to asbestos must be included within risk assessments and method statements (RAMS).

Asbestos registers are available at each Campus Estates and Facilities Office. Prior to commencing intrusive activities within any area(s) not covered by the management survey, the Contractor must contact the EFD Asbestos Management Team for further advice.

In the event that suspected asbestos containing materials (ACMs) are uncovered / inadvertently disturbed, works **must cease immediately** in the area and the following procedure followed:

- Upon discovery of ACM stop work immediately and seek further advice from the EFD asbestos management team.
- If the ACM is in a poor condition, keep all other persons out of the work area.
- If there is dust or debris on clothing which has come from the ACM, carefully remove the clothing and if available place in a plastic bag, for disposal as hazardous waste.
- Wash thoroughly by using the nearest washing facility, or if available take a shower.
- Leave the washing facility clean.
- Put up warning sign in the affected area - 'Possible Asbestos Contamination'.

a) Asbestos Awareness Training

All building and maintenance personnel planning to work on University premises must have **received formal asbestos awareness training in accordance with Regulation 10 of the Control of Asbestos Regulations 2012**. Training should be given by a recognised training provider covering the topics as laid out in L143 the Control of Asbestos Regulations 2012 (paragraph 126), at intervals not exceeding 3 years. This should be supported by refresher training (paragraph 147) provided on an annual basis, although this may be included as part of other health and safety updates and undertaken by in house competent persons.

b) Asbestos Works

Asbestos removal works or other works to ACM must only be carried out with close liaison

of the EFD asbestos management team. Only UKAS accredited surveyors / laboratories and HSE licensed asbestos removal contractors may be used.

6.4 Building Services

Some of the University's plant and equipment is remotely and automatically controlled through a 'Building Management System' (BMS). The Contractor or their operatives/subcontractors should receive appropriate authorisation from the EFD Representative that any plant or equipment they have been instructed to work on, has been isolated from the control system.

No connections may be made to electricity, mains gas, compressed air, steam, water services, without authorisation from the EFD Representative. Where suspected redundant services are identified, which have not been detailed within the contract, these must be brought to the attention of the EFD Representative with a view to verification prior to their removal.

6.5 Control of Substances Hazardous to Health (COSHH)

Contractors must ensure where 'hazardous substances' are to be used that:

- Where possible hazardous chemicals are substituted by less hazardous alternatives
- COSHH assessments must be in place, on-site and adhered to
- Consideration must be given to the building / occupiers in respect of any fumes which may extend beyond works areas
- Operatives are not being exposed to levels exceeding the Workplace Exposure Levels (WELs) stated on the assessment sheets and evidence be available on the site for inspection.
- Disposal complies with the requirements of environmental protection and waste disposal legislation and is via a licensed waste disposal contractor

Individuals should be reminded that they should always:

- Follow instructions given by their line management/supervisor
- Wear any necessary protective equipment
- Read the labels on the item concerned and follow the instructions in the COSHH assessment

Where fuels / chemicals need to be stored onsite during works, contractors will ensure that all static fuel tanks and drums regardless of size shall be stored in a suitably bunded area away from drainage systems/surface waters and on non-porous/ sealed ground. The volume of the bund should be:

- 110% of the volume of a single tank/drum,
- Or in the case of multiple tanks or drums being stored, 110% of the largest or 25% of the total volume whichever is the greater.

At fuel storage points all valves, including fuel delivery trigger valves shall be locked off when not in use with the keys kept by a nominated person responsible for the storage facility. Mobile bowsers shall be parked in a suitably bunded area when not in use.

6.6 Demolition and Dismantling Work

Where works require demolition and or dismantling of a building structure, an asbestos refurbishment survey and an engineering survey shall be made by a competent person prior to the demolition of **any** structure. The survey shall determine the condition of the framing, floors, walls, the possibility of unplanned collapse of any portion of the structure, and the presence of hazardous materials. These surveys must be prepared and submitted with the RAMS by the Contractor.

Evidence of competence to undertake demolition works will be required to be available on-site, for example: 'Certificate of Competence of Demolition Operatives' (CCDO) and/or a certificate of competence from the National Federation of Demolition Contractors (NFDC).

6.7 Emergency arrangements

a) First Aid

Contractors must make their own arrangements for first aid in compliance with the Health and Safety (First Aid) Regulations 1981. This should include ensuring that adequate numbers of trained first aiders and first aid equipment is present on-site at all times. First aid provision must be adequate for, and available to, all persons on-site including visitors and subcontractors.

Where specialist first aid instruction or training is required, for example in dealing with the effects of suspension trauma, the Contractor should ensure that either they or appropriate subcontractors have received the instruction or training.

When it is not practical for the contractor to arrange first aid cover, and the risk of the activities is low the University Representative may agree that the Contractor can use the University's first aid provision; however the agreed arrangements must be clearly written into the method statement.

b) Accident Reporting

The Contractor shall notify their University Representative of all accidents and near-misses* which arise out of the contract works, including those that have/had the potential to impact on university staff, students, members of the public or the environment and that the Contractor is required to report under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations)

In the event that an ambulance is required to attend the site the Contractor should notify the relevant Campus Security Gatehouse as soon as practical, so that they can direct the ambulance on arrival. The Gatehouse telephone number will be advised at the induction.

*Note: For the purposes of definition, a 'near-miss' is regarded by the University as a term for those events which do not cause harm, but which might have done so under different circumstances.

Contractors must record all accidents, incidents, and near-misses, which arise out of the contract works. The online reporting system can be accessed via: <https://app.workrite.co.uk/sc/UniversityofGreenwichAMS>

c) Security of University Premises

The University and its buildings are covered by CCTV and the Campus has a 24 hours a day Security presence. In the event of any security problems e.g. damage, theft or fire etc., you must contact the local Security Gatehouse.

To maintain the security of University buildings you should ensure that:

- Doors fitted with door entry controls are not propped open.
- All tools and materials are secured at the end of each day.
- At the end of the work (or working day) you must ensure that all doors and windows in the area you have been working are closed and secure.
- Under no circumstances should any rooms you are working in be left unattended at any time. If a number of rooms are being worked on then a contractors operative must be present at all times.

6.8 Excavations

Prior to the start of any works that involve digging or excavation, a risk assessment must be carried out and recorded by the University of Greenwich representative in charge of the project. This will establish the likelihood of underground services being present in that area e.g. electric cables, gas pipes, water pipes, data cables, drains, etc, and highlight any other environmental considerations. In the event that the risk assessment identifies the possibility that underground services are present, then the Permit to dig must be implemented.

The only exception to this is when routine grounds maintenance work is being carried out in established flower beds e.g. planting, turning over soil etc.

Important – Not all services are buried as deep beneath the earth as you would expect. It is common to find cables and pipes at very shallow depths of just a few centimetres. Therefore you should never assume that you will be safe.

All trenches and excavations, particularly those adjacent to roads or existing buildings must be adequately shored and falls of material prevented by battering back, caissons or other effective means. In particular, the safety of children/students should be borne in mind and excavations boarded over, enclosed and fenced when work is not actually proceeding. Open manholes should be protected at all times.

When work is complete, the site must be made good and any markers, protective covers and warning notices restored in accordance with industry standards.

6.9 Fire Safety

a) Fire Safety Policy

Compliance with the University procedure does not relieve the Contractor from any responsibility for taking all other reasonable precautions, whether prescribed by statute or otherwise. For example, Contractors should endeavour to comply with the Fire Protection Association document ‘Joint Code of Practice (Ninth Edition) for Prevention of Fire on Construction Sites’. For projects over £2.5m in value the University mandates that these requirements must be met.

b) Responsible Person – Fire Safety

Contractors must appoint a “Responsible Person” as required under The Regulatory Reform (Fire Safety) Order (RRO) 2005 who must ensure compliance with the RRO. The appointed responsible person must liaise with the University competent person as required on all fire related matters.

Contractors’ site specific Risk Assessments must fully address the risk associated with fire during the works.

c) Contractors Fire Safety Management Plan

Contractors will be required to provide evidence to demonstrate they audit, monitor and review performance of the Sub-Contractors they engage to undertake work on the University premises.

Before any work is commenced the University will require the Contractor, as part of the method statement, to submit a fire safety management plan to cover the complete project. The plan will include (but must not be limited to) the following aspects:

Hot Works: The Contractor must apply for a UOG Hot Works Permit from the Campus Estates and Facilities office giving at least 24 hours’ notice. A UOG Hot Works Permit will be required even when contractors have their own hot work system in place.

Contractor Fire Watch: Where any hot works are conducted, the Contractor’s site management plan must include arrangements for maintaining a continual fire watch of not only the specific contract area but all areas that their operatives (direct or sub-contract) have visited. They will also be required to survey all areas one hour after the hot work has been completed

Fire Escape Routes: Any escape routes for the building occupants must be maintained throughout the period of the contract. Should it be expected that escape routes would be affected by building works, alternative arrangements, including signage and barriers, must be made with the agreement of the Campus Estates and Facilities Office.

Fire Doors: Fire doors protecting the remainder of the building must not be obstructed or compromised by building works. Contractor’s staff are not permitted to use external fire escape doors for normal access/egress unless specifically agreed with the Campus Estates and Facilities Office.

Fire Alarms: Arrangements must be made by the Contractor for giving warning in the event of fire on the site. This should include warning the remainder of the building using the installed fire alarm system if within a building, or as agreed with the Campus Estates and Facilities Office. Should the fire alarm sound within the building in which the contract is situated, all site personnel will be expected to evacuate the building. They should muster at the designated assembly point until permitted to return to the building.

Where the works involve the fire alarm systems the Campus Estates and Facilities office will require that a detailed method statement is provided. No work is permitted to commence on any aspect of the Fire Alarm system until a Permit to Work has been obtained from the Campus Estates and Facilities Office.

Automatic Fire Detection: Where works will adversely affect smoke/heat detectors, the Campus Estates and Facilities Office is to be informed and arrangements will be made to isolate the necessary detector heads. This will be undertaken under a permit. It may not be possible to isolate detectors whilst the building is occupied. Where a permit is issued for the covering of smoke detector heads the Contractor will be responsible for managing the agreed arrangements including:

- Covering
- Methodology for uncovering to prevent unwanted alarms
- Uncovering and re-covering to maintain protection e.g. overnight

Fire Extinguishers: UOG does not supply fire extinguishers for use on building works. The Contractor must supply sufficient fire extinguishers to cover the area of the works. The type and quantity of extinguishers provided by the Contractor must be based on their Fire Risk Assessments.

Gas cylinders: Before bringing any gas cylinders onto site, a Hot Work Permit must be completed. There should be the minimum number of cylinders on the site for daily use. Gas cylinders should be removed from the building and secured at night. If there is a need for a cylinder stock, a secure cage/compound should be constructed to contain the cylinders. If the Contractor intends to use acetylene gas cylinders they should seek agreement from the Campus Estates and Facilities Office before use.

Temporary fire stopping of openings: If any opening made in fire resisting materials forming the site boundary is to be temporarily packed solid with mineral wool, intumescent pillows or intumescent putty whilst work is suspended overnight, it must be clearly stated within the method statement. These materials are to be supplied and installed by the Contractor. They must be removed and the permanent fire resisting material restored before completion of the works.

Temporary Buildings: Any temporary buildings should be designed and constructed so as to comply with test specifications laid down in Loss Prevention Standard 1195 published by the LPC. Temporary buildings located inside UOG premises or within six meters of such premises, must be fitted with automatic fire detection systems. In the case of large projects the fire detection system may be required to be linked to the Campus system.

Materials: Where practicable, combustible materials should be stored outside of buildings. Where materials are stored within buildings they should be kept in a locked room which is protected by the campus automatic fire detection system and have firefighting equipment located nearby.

Emergency Planning: All aspects of emergency response and planning must consider out of hours occupation and whether this would require a different approach e.g. personnel; locked doors; different escape routes etc.

6.10 Gas Safety

All works related to gas installations and appliances shall be in accordance with the relevant Gas Safety (Installation and Use) Regulations.

All works shall be executed by competent, certified persons, registered on the Gas Safety Register for the specific work being executed. Evidence of competence to work on either domestic or non-domestic gas shall be provided to the University in advance of the works being undertaken in the form of a Gas Safety card. Persons working with gas must not work beyond their authorised competence level under any circumstances and the University must be informed immediately if it is believed that the scope of works is outside the level authorised by the Gas Safety (Installation and Use) Regulations.

Any contractor found to be working on gas without the appropriate qualifications will be asked to stop work immediately and will be removed from site.

6.11 Insurance Requirements

The University requires Contractors to maintain minimum £10 million Public Liability Insurance cover and £10 million Employers liability insurance. For those companies who have design liabilities (including Principal Designers) the University further requires a minimum £5 million Professional Indemnity Insurance cover. The limit of indemnity should apply to each and every occurrence or series of occurrences arising directly from one cause.

6.12 Isolation of services

Due to the potential disruption and costs arising from unplanned service disruptions, Contractors must not effect service isolations without prior permission of the Campus Estates and Facilities office, other than in emergencies. In all cases, a permit to work will be issued once the EFD Representative is satisfied that all areas which will be affected by the interruption have been identified, that relevant stakeholders have been consulted and that suitable plans have been developed to manage the risk and impact of disruption.

a) Mechanical and Electrical Services

Prior to any works commencing, the contractor must ensure that a detailed survey of the area of the building is carried out to identify building services. This may include consultation of co-ordinated services drawings provided by the EFD Representative.

To reduce the risk of injury/incidents during isolation of services the following procedures will be adhered to:

- Only suitably qualified and competent technical staff (NICEIC Gas Safe etc.) working on behalf of the Contractor shall carry out the identification of any services.
- Services that cannot be clearly identified and their source of supply confirmed should be brought to the attention of an EFD Representative who shall instruct the Contractor on how to proceed.
- In the event that the Contractor encounters any redundant services not detailed within the contract, the EFD Representative must be notified with a view to their removal.
- Contractors shall ensure that operatives / subcontractors do not work on any electrical or mechanical equipment if a ‘Warning Notice’ is attached / displayed, without explicit prior approval from an EFD representative.
- Live working must only be carried out where it is unreasonable to work with the system dead, such as fault finding and testing, where the risks are acceptable and suitable precautions can be taken against injury.

b) Substation / Switch Rooms

The Contractor or its operatives shall not enter any substation, switch room or similar area without permission from the University's Electrical Technical Officers or an Authorised Person, who will issue any necessary Permit to Work. Request for access shall be made a minimum of 48 hours in advance and be accompanied by method statements and risk assessments for the task being undertaken.

c) Underground / Overhead Services

Contractors engaged in operations where underground or overhead services may exist, must take adequate steps to locate, identify and mark such services. Relevant precautions must then be taken to prevent injury or damage to persons or property.

d) Method of Isolation

Where isolation of services is required the method for achieving this must be clearly stated within the Method Statement.

Electrical isolation: For low voltage systems (up to 1000 volts/Ac) the means of isolation could be an adjacent local isolation device, which is under the direct control of the competent person carrying out the work. These methods can be used without further precautions provided there is no foreseeable risk that the supply could be reinstated by others without proper authorisation.

When there is no local means of isolation, or the point of isolation is not under the direct control of the person carrying out the work, or where there is a risk of inadvertent reinstatement of the supply by other workers, the circuit or equipment to be worked on should be securely isolated and a Permit to Work issued.

Securing the point of isolation should be by a combination of the following methods;

- An appropriate locking-off device and/or padlock with unique key or combination attached to the circuit breaker. Where more than one person will be working on equipment, the use of a multi-lock hasp can be used to prevent access to a main isolator until such time that all persons working on a system have completed their work and removed their individual padlocks from the hasp.
- A locked switch-room door and/or locked distribution panel.
- Removal of the relevant circuit fuse (may be used with a lockable fuse insert and padlock).
- The above padlocks keys or combinations and removed fuses should be retained by the competent person carrying out the work.
- An appropriate notice should be placed at the point of isolation e.g. "Caution, Do Not Switch On, and System Undergoing Maintenance". It is also helpful to include the person's name and contact details on a write-on section.

Note: The practice of putting insulating tape over a switch or circuit breaker to prevent accidental switch on, is NOT considered a safe isolation procedure.

Pressurised systems: Where a machine or device is connected to a pressurised piping system e.g. hydraulic (water or oil), pneumatic, steam, or where piping may introduce hazardous products during the servicing or repair process, the piping shall be isolated by closing the local isolating valve or, for higher pressure systems, closing two valves.

Where this is not possible, then the piping should be disconnected and blanked off, or disabled using a suitable device such as inserting a blanking plate between the pipe flanges.

In all cases the supply valve must be closed and locked out prior to work commencing:

- Valves should be locked with a padlock (and chain if required).
- If the valve cannot be locked off then the valve handle may be removed and retained by the person carrying out the maintenance.
- A suitable warning notice such as "Caution, Do Not Open Valve" and "System Undergoing Maintenance" shall be displayed at the isolation point. It is also helpful to include the person's name and contact details (on a write-on section).
- Blocking and/or restraints such as chocks or locking pins should be put into place to prevent any parts from moving during repairs.
- Residual or stored energy must be relieved or restrained prior to repair work commencing, this may include relaxing any springs and relieving any pressure or vacuum.
- Local gauges should be observed to ensure that the pressure has fallen to zero and/or venting valves used to prove this.

Proving dead / verifying isolated condition: Following isolation of equipment or electrical circuits and prior to starting work, appropriate tests must be carried out to prove that the parts to be worked on are isolated.

- It must never be assumed that equipment is isolated because a particular isolation device has been placed in the “off” position.
- The test instrument must be proved to be working on a known live source or proprietary proving unit before and after use. All phases of an electrical supply and the neutral should be tested and proved dead.
- Some equipment may have additional electrical supplies under certain conditions, e.g. time switches and photo electric sensors which will only switch during the hours of darkness, therefore if the proving dead check was carried out during the day; equipment may become live in the evening.
- The final step should be to attempt to re-start or re-energize the equipment or machinery to verify the isolated condition. If the equipment does not re-start, then work can proceed.

6.13 Monitoring Performance

Contractors are responsible for adequately resourcing their work to meet the highest health, safety and environmental standards and for communicating these arrangements through their supply chain whilst monitoring compliance.

Contractors are required to undertake:

- For works lasting more than 24 hours, at least one daily, recorded site walk-round by the Site Manager checking standards of health and safety.
- For Notifiable Works (either (a) lasting longer than 30 working days and having more than 20 workers working simultaneously at any point in the project; or (b) exceed 500 person days) a health and safety inspection undertaken by a competent professional safety practitioner at no longer than 2 weekly intervals – the first inspection should be carried out within the first 2 days of contract start on-site. Reports should be available on-site for inspection.

6.14 Non-English Speaking Operatives

Where non-English speaking operatives are employed, the Contractor shall ensure that at all times a suitable number of translators, capable of instructing non-English speaking personnel in safety and other operational matters, are available on the site (typically one translator for every five operatives).

The Contractor shall maintain written records countersigned by the translator confirming that he/she has checked that instructions, given by him/her to non-English speaking personnel, have been clearly understood by each of them. Such records shall include, but not be limited to, instructions for safety induction and assessment, emergency procedures, method statements and safety and environmental awareness talks.

6.15 Noise and Vibration

Construction activities should have a minimal impact upon the University’s normal operation. Resultant noise and vibration can constitute a major source of nuisance and severely disrupt learning and research programmes, particularly when works are undertaken close to or within occupied buildings. The Contractor must ensure that any construction activities which are anticipated to create noise and vibration are brought to the attention of The University Representative who will notify affected staff prior to works commencing, giving as much notice as possible.

The Noise at Work Regulations imposes limits on exposure time of employees to harmful noise. The duty is placed on the employer of the person exposed. It is essential, therefore, that when any operation of the Contractor is likely to expose any employee on-site to an average noise level of 80db (A) or above, assessments are carried out and findings acted upon.

When required, equipment should be marked to show the noise level that is likely to be generated.

When hand-held vibratory power tools, equipment and plant are used, without suitable controls, there is a possibility of persons using these tools and equipment on a regular basis contracting

'hand-arm vibration syndrome', commonly known as Vibration White Finger (VWF). When such equipment is used the Risk Assessment should detail what controls exist to reduce the risk of injury.

6.16 Personal Protective Equipment

Contractors must supply appropriate protective clothing and equipment to a relevant British Standard. The minimum standards include:

- Safety helmets, where there is a risk of a head injury
- Bump hat and torch when entering duct spaces
- Protective footwear, if the feet are at risk from falling objects, slipping, cuts, chemical or electrostatic build up
- Hearing protection in areas with a noise level of 85 dB or more
- Eye protection against chemical, dust, gas and vapour radiation and impact
- High visibility clothing when working within the vicinity of site traffic

6.17 Plant, Materials and Equipment

All plant and equipment used by Contractors and subcontractors, must be safe and fully efficient in use, guarded and equipped with safety devices wherever required and tested and examined in accordance with regulations.

Periodic Maintenance must be carried out in accordance with manufacturer's instructions.

Statutory registers, certificates and notices where appropriate are to be displayed or readily available for inspection. Evidence of maintenance and testing should also be available for inspection.

a) Cartridge Operated

Cartridge fixing tools are not to be used on University premises without the prior permission of the University Representative.

b) Crane Operations

Cranage work must be undertaken under a Permit to Work. The Estates Compliance Manager or the Safety Unit must see a written Lifting Plan for all crane operations. A crane lift is deemed by the University to be a high-risk operation; therefore an annotated site plan should accompany the Lifting Plan.

The Lifting Plan is to be issued for comment at least seven workings days prior to the start of the lift (a longer lead time may be needed depending on the complexity and risk of the operation).

c) Electrical equipment

All electrical work and work involving the use of electrical tools and equipment shall be carried out in accordance with the Electricity at Work Regulations 1989 i.e.;

- Portable electrical equipment should be PAT tested at appropriate testing intervals deemed by the findings of a risk assessment.
- Tools to be rated max 110V.
- Battery powered tools are preferable.
- All practical steps are to be taken to prevent circuit conductors and electrical equipment being made live whilst work in progress. 'Approved type' caution notices are to be displayed incorporating date, name and contact details.
- The Contractor will be responsible for ensuring adherence to these provisions by any electrical subcontractor(s).

d) Mobile Plant

The University requires that evidence is available as to the competency of all mobile plant operators and where appropriate their vehicle Banks Man. All mobile plant operators are required to hold a CPCS certificate for the category of plant they are

operating. Contractors are to ensure, and have available for inspection, appropriate statutory inspection reports/ certificates and maintenance records.

e) Storage

All items of equipment and materials are to be stored safely and under cover to prevent deterioration. The area in which items are to be stored will be designated by the University Representative. The Contractor shall be responsible for the security of any materials or equipment stored; The University accepts no liability for loss in this regard.

6.18 Plumbing and Water Systems

The following works are to be carried out only by Contractors who have given prior notification to and received approval from the Water Undertaker:

- The erection of a building or other structure, not being a pond or swimming pool.
- The extension or alteration of a water system on any building other than a house.
- A material change of use of any building.
- The installation of
 - a bath having a capacity, as measured to the centre line of overflow, of more than 230 litres;
 - a bidet with an ascending spray or flexible hose;
 - a single shower unit (which may consist of one or more shower heads within a single unit), not being a drench shower installed for reasons of safety or health, connected directly or indirectly to a supply pipe which is of a type specified by the regulator;
 - a pump or booster drawing more than 12 litres per minute, connected directly or indirectly to a supply pipe;
 - a unit which incorporates reverse osmosis;
 - a water treatment unit which produces a waste water discharge or which requires the use of water for regeneration or cleaning;
 - a reduced pressure zone valve assembly or other mechanical device for protection against a fluid which is in fluid category 4 or 5;
 - a garden watering system unless designed to be operated by hand; or
 - Any water system laid outside a building and either less than 750mm or more than 1350mm below ground level.
 - The construction of a pond or swimming pool with a capacity greater than 10,000 litres which is designed to be replenished by automatic means and is to be filled with water supplied by a Water Undertaker.

The Water Undertaker has 10 days to grant or withhold consent and/or impose conditions. Upon completion of the work the Contractor must send a Completion Certificate to the Water Undertaker and also to the Campus Estates and Facilities Office.

6.19 Legionella controls

Any alterations to the site services may necessitate the need for the existing Water Hygiene Risk Assessment to be reviewed. It is therefore a requirement that the Contractor should liaise with the EFD Legionella Compliance Manager to ensure that appropriate amendments are recorded in the relevant Risk Assessment.

If works require alteration to the domestic hot or cold water services, due consideration must be afforded to the immediate and future risks associated with Legionella. Where appropriate the part being worked on shall be drained and isolated from the main system ensuring that no dead legs/blind ends are created by this isolation procedure.

If it is not possible to isolate the relevant part from the operational system, then weekly flushing shall be undertaken to all outlets connected to the system throughout the duration of the contract. This flushing shall involve each and every outlet being run for a period of no less than 3 minutes and shall ensure that hot water to every outlet/temperature mixer valve is above 50°C and that cold water is maintained below 20°C. Records of these activities shall be maintained by the

Contractor, shall form part of the handover documentation at the end of the contract works and be recorded within the Health and Safety Files. Information that needs to be captured includes:

- Person undertaking activity and signature
- Date activity was carried out
- Details of areas/outlets flushed.

In order to further reduce the possibility of Legionnaires' disease, cold water pipework shall be insulated where it is felt that heat from adjacent services could be transmitted to the cold water main. Hot and cold main distribution pipework should be run separately wherever possible.

On all hot and cold services, all feeding taps, showers or WC's are WRAS approved and the following must not be used:

- Rubber flexible connection pipes
- Oil based sealing compounds
- Hemp or similar

For new installations, as soon as a hot or cold water system is filled, all outlets must be flushed weekly. This flushing must also be recorded and the record included in the hand-over documentation.

It should be recognised that flushing is a key requirement in managing the risks and as such should be undertaken by a competent person, without the generation of an aerosol.

On completion of the works, all hot and cold water services shall be drained, flushed out and chlorinated and a certificate provided to the Campus Estates and Facilities Office as evidence.

a) Chlorination of Water Services

Any alterations to domestic water services will necessitate the need for chlorination. Under no circumstances should any system or part system be reconnected to the site services without such work being completed. Chlorination works will be carried out in accordance with **BS EN 806** and **BS 8558** as applicable

b) Hot Water Supply

Domestic hot water systems shall be designed to ensure the hot water flow temperature taken at the calorifier is at 60°C and a return temperature of not less than 50°C. The water temperature at any outlet shall not be less than 50°C within one minute of running the water.

To provide information and assistance in monitoring/combating Legionella contamination of water supplies, a flow and return temperature gauge shall be fitted adjacent to the calorifier and where possible, a temperature sensor connected to the Building Management System.

Storage calorifiers shall be piped to reduce stratification taking place and a shunt pump fitted and controlled as per the HSE L8 Code of Practice and Guidance recommendations.

c) Drinking Water

New cold water facilities in kitchens or similar spaces are to be taken off the rising main. These outlets are to be labelled 'Drinking Water'. Pipework runs should be kept to a minimum and insulated where it is felt that heat from adjacent services could be transmitted to the cold water main.

d) Header Tanks

All water storage tanks shall be fitted with a removable lid and be insulated to reduce the risks of a rise in temperature and Legionella bacteria growth and incorporate a screened overflow and air vent to Local Byelaw. It must be ensured there is always a flow of water across storage tanks. Storage capacity should be kept to a minimum and shall not exceed 24 hours storage.

6.20 Radioactive Materials

Under no circumstances are sources of ionising radiation to be allowed on, removed from or relocated within University property without the written consent (minimum of 10 days' notice) of the Radiation Protection Supervisor.

6.21 Scaffolds and Towers

a) Scaffolding – Design and Erection

Contractors must ensure the competency of scaffolding subcontractors both in terms of erection and, where appropriate, design. All scaffolders working at the University must hold appropriate CISRS (Construction Industry Scaffolders Record Scheme) cards. More information can be found at <http://cisrs.org.uk/>

Scaffolding should be designed to protect members of the public in the vicinity of the scaffold. Fans over access routes, brick guards on working platforms and debris netting fitted as necessary are examples of measures that should be considered (note that wind loading etc. will need to be accounted for when designing the structure). In addition scaffolds left overnight must be protected to deter unauthorised access by physical barriers to the first lift. Proposals for scaffold design should be discussed with the University Representative as early as possible

All scaffolding over entrances that are to remain in use and in areas of pedestrian travel must be doubled boarded and polythene sheeted between boards, unless hot works are planned from the scaffold.

Contractors are required to only use scaffolding subcontractors who are registered with the National Access and Scaffolding Confederation (NASC).

All scaffolds should display a completed 'scafftag' to enable a rapid check whether the scaffold has been inspected on a weekly basis and after bad weather.

Site plans must be used to assist with the planning of scaffolding operations.

All scaffolding is to be constructed to follow **BS EN 12811-1** and the tie patterns and bracing detailed therein. All scaffolding on-site will be erected in compliance with **NASC TG20:13**. Any scaffold that is not described as a basic scaffold under TG20 must be suitably designed. All scaffold designs must be shown to the University Representative as part of the permit to work process; without this, the contractor may not commence erection.

b) Management of Hoists

Hoist suppliers/installers should preferably be directly appointed by Contractors rather than as scaffold subcontractors. It is the responsibility of the Contractor to ensure that the hoist design and inspection history complies with the Lifting Operations and Lifting Equipment Regulations 1998. Where hoists are to be attached to scaffold structures, the site manager must provide specifications of the hoist to the scaffold designers **during the tender stage** to ensure that scaffold designs (and quotations) account for the additional loadings and design features (such as gates).

c) Scaffold Inspections

Scaffold inspections are to be arranged by the Contractor. The inspector must be competent as defined in the HSE's Scaffold Checklist. Written inspection records must be held on-site. Partially completed scaffolds must have prominent warning signs prohibiting use.

d) Management of Scaffold Handover

The contractors must review the scaffold with the scaffolders to ensure it is fit for purpose and verify that designs are up-to-date before accepting initial handover. Scaffold designs must be held on-site. The handover must clarify which ties have been pull-tested (in accordance with **NASC TG4:11**).

e) Use of Stair Towers or Ladders

Wherever possible, scaffold access should be by stair tower rather than ladder. When pricing for scaffolds, separate costs should be provided for installing stairs. If ladders are to be used, they should be contained within a ladder tower. Where internal ladders are used, ladder access points must be protected by ladder gates (rather than trapdoors where reasonably practicable). Ladders must be removed or boarded over at the end of the day. Access to stair or ladder towers must be locked off. Over-boarding of ladders is acceptable if securely clipped or a locked cover plate is fitted.

f) Mobile Towers

Externally placed towers should not be erected or used in winds in excess of 17 mph.

Persons erecting mobile tower scaffolds must hold proof of valid training (e.g. suitable PASMA training).

Mobile towers are to be inspected in accordance with HSE Guidance. If there are multiple mobile towers on-site they should have suitable identification tags to make it possible to correlate inspection records with specific mobile towers.

6.22 Scheduled Monuments

At the Greenwich Campus several of the buildings and the Grounds are Scheduled Monuments and are protected by law under the Ancient Monuments Act. Under the ‘Standing Scheduled Monument Consent Guidelines’ all works, other than those defined as ‘day-to-day care’ require formal consent from Historic England. No other works can be carried out prior to this consent being obtained, the only exception is; ‘Urgent Works’ as defined in the same document. All works other than “day to day care” will require two weeks notification to Historic England.

Full guidance on the subject and the statutory requirements of the consent process can be found in the Historic England publication ‘Standing Scheduled Monument Consent Guidelines for Maintenance and Minor Works’, available at request from the Greenwich Campus Office of Estates and Facilities Management.

Contractors who work in, or intend to work in, Scheduled Monuments at the Greenwich Campus should request a copy of the above guidelines and must ensure their risk assessments and method statements make specific reference and follow the correct Method statement(s) within the guidelines for the particular task in hand.

6.23 Site Management

Contractors are to ensure that suitable site safety management systems are in place throughout their works. Contractors must require their operatives to behave in a respectful manner towards staff, students and visitors.

There are a number of licensed premises on-site. The University does not permit Contractor’s operatives to make use of these facilities at any time and no alcohol should be consumed on site at any time.

All site operatives must carry their UOG identification whilst working on site.

Contractors shall operate a clean-floor policy and shall carry out work or services in a clean and orderly manner to comply with that policy at all times. Waste materials are to be removed from the site each day, in accordance with waste legislation. Any waste not cleared which causes a hazard will be removed by the University and the cost charged to the Contractor.

a) Segregation of Works

Work areas must be clearly demarcated and physically separated from students and staff. Cones and hazard warning tape are not deemed an effective form of barrier to segregate/protect staff, students and members of the public from construction activities. Therefore a physical barrier of a type proportionate to the nature of the construction

activities being undertaken (e.g. Heras fencing, solid hoarding or plastic barrier) must be erected at all times. Construction warning notices (of a pictorial type), conforming to current British Standards should be displayed in prominent positions around the site perimeter.

Where Heras fencing is selected a number of additional design features are required. Notably:

- Feet should be designed, positioned and/or conspicuously coloured to prevent trips
- Panels should be secured with two couplers
- Gates or doors in the panels should be padlocked when the site is unsupervised
- Opens ends of fencing should have a 'return' to increase stability and security.

b) Site Compound

Areas allocated to compounds are to be agreed with the University Representative prior to start on site. Consideration should be given to safe vehicle movement, storage and welfare cabins and the impact on the immediate surroundings whilst ensuring measures to prevent unauthorised access are in place.

Note: Site compounds are not to be used for the parking of Contractor vehicles unless otherwise authorised by the University representative.

c) Site Signage

Safety signs must comply with the Health and Safety (Safety Signs and Signals) Regulations 1996 and must include a symbol/ pictogram accompanied by words where necessary. Signs must be of a professional standard. As a minimum, when barriers, fencing or hoarding are used, there must be signs warning persons not to enter the work area (e.g. No unauthorised access).

d) Storage, Transport and Disposal of Waste

Contractors have responsibility for any waste produced on site as a result of works or services undertaken, and a legal Duty of Care to protect human health and the environment.

As a contractor for the University of Greenwich you must:

- Keep waste to a minimum by doing everything you reasonably can to prevent, reuse, recycle or recover waste (in that order).
- Sort and store waste safely and securely:
 - Storing waste in a secure place in suitable containers that will stop waste escaping.
 - Using covers to stop waste blowing away and / or where rain could cause contaminated run-off or prevent the waste from being reused.
- Ensure the person collecting / removing the waste is a registered waste carrier and that the receiving site is licensed to accept it under an Environmental Permit.
- Ensure a valid waste transfer note is used for each load of waste that leaves site.

You have extra responsibilities for hazardous waste, and as a contractor you must ensure that you are aware of the Hazardous Waste Regulations and transfer any hazardous waste with a Consignment Note.

Any hazardous waste likely to be produced should be identified prior to the start of work and appropriate storage, transport and disposal arrangements must be in place. In line with the Hazardous Waste Regulations Contractors must not mix hazardous and non-hazardous waste and should keep records of Consignment Notes for at least three years.

Skips are to be covered and where practicable lockable. They should be located in an area agreed by the University and enclosed / fenced off to maintain the University image. Where skips contain combustible material, they must not be located within 6 metres of:

- Any building
- A petroleum store
- A gas cylinder store

e) Prevention of Releases to Land, Air and Water

Adequate prevention and mitigation procedures must be in place for any substances brought on to University premises that have the potential to be released to land, air or water and cause environmental harm. It is important to note that it's not just hazardous substances that can harm people or the environment, any substance that's not found naturally in an environment could cause pollution.

Contractors have responsibility for preventing contaminated water or other polluting liquids ('trade effluent') causing pollution. No substance or solid material shall be allowed to enter controlled water or land. Contractors may not deposit any waste, chemicals or any other substances whatsoever into drains or sewers on University premises unless express permission has been given by the University Representative and where necessary, the appropriate regulatory authority.

Contractors shall suitably store minimum necessary quantities of hazardous materials on site, and provide bunding and/or spill kits as necessary. Particular care shall be exercised near surface water drains, watercourses and ponds.

Any substances regulated under the Control of Pollution (Oil Storage) Regulation 2001 must be stored in compliance with these regulations.

Any unplanned release should be reported to the University Representative as soon as is practicable, or Campus Security if out of hours, and an Incident Form completed.

No burning of waste on-site is allowed. Control of dust from all works operations must be planned in advance.

6.24 Smoking

No smoking is permitted inside or within five metres of any University building. Smoking includes manufactured cigarettes, hand-rolled cigarettes, e cigarettes, pipes, cigars, herbal cigarettes and water pipes (including shisha, hookah and bubble-bubble pipes).

6.25 Traffic Management and Road Safety

The segregation of vehicles and pedestrians on site is absolutely essential. The operation of plant and vehicles in and around 'live' sites pose a particular risk to staff and students, especially when reversing or crossing footpaths. Therefore the following represents controls that should be brought to the attention of all drivers (including those that are delivering materials):

- Follow the Highway Code
- Give way to wheelchair users, pedestrians, cyclists and other non-motorised vehicles at all times
- Construction plant, HGV's etc. must be fitted with audible and visual reversing alarms or cameras
- Unavoidable vehicular operations that pose a risk to the public (e.g. crossing footpaths) should be assessed and controlled through the use of a banks man, or restricting delivery times etc.
- Contractor's vehicles must not exceed 5mph in pedestrian areas or 10mph on university roads.

Contractors' vehicles must not park in/on the following areas:

- Bays marked for drivers with disabilities
- Areas marked with double yellow lines
- Yellow hatched areas
- Paving flags or footpaths
- Delivery areas – unless specifically unloading/loading
- Locations which block final exit routes
- Locations which block access routes
- Adjacent to drop curbs provided to aid those with mobility issues

Delivery schedules should be discussed with the University Representative, if they are likely to disrupt adjacent projects or the University road network. Where significant amounts of mud and debris are likely to be carried on to the road network, the contract should allow for wheel washing facilities on-site and road cleaning operations.

Contractors working on access roads within the curtilage of a campus should ensure they provide adequate signage and barriers to safely direct traffic around the work area.

Note: Vehicle drivers are expected to report all incidents, accidents and emergencies either to the Security Gatehouse or Campus Estates and Facilities office. All incidents/accidents must be recorded on the University Accident/Incident reporting system.

6.26 Welfare, Lavatory and Washing Facilities

All Contractors must take reasonable steps to ensure that adequate welfare facilities are provided, suitable for the task in hand.

During planning of any CDM projects, the University representative should assess welfare requirements in collaboration with the appointed contractor and / or Client representative(s). Contractors are specifically advised that they are **not to make use of toilet facilities within residential accommodation** although local arrangements may allow the use of staff facilities if appropriate. Pre-construction information and/or contract preliminaries will explain what is available.

Operatives should be reasonably clean and tidy when using Campus welfare facilities. Contractors may use on-site shops but are not permitted to use catering facilities unless they have removed all PPE and have clean clothes and boots.

When evaluating the welfare requirements of the project, it may be decided that the campus facilities are not suitable and in this case the Contractor must make alternative arrangements.

6.27 Young Persons

The university acknowledges the importance of giving young people (persons under 18 years of age) opportunities to develop skills. This can be done through participation in work. However, young people are more vulnerable than adults at work. The requirements of the Management of Health and Safety at Work Regulations 1999 (Regulation 19) should be observed when employing young people (including prohibition of certain work activities) and specific Young Persons' Risk Assessments.

Contractor's operatives may not bring children (persons who have not reached the minimum school leaving age) on to site.

7 Upon Completion of Works

On completion of all works, contractors will:

- Remove all waste, unless agreed otherwise with the University representative.
- Remove all surplus materials.
- Remove tools, ladders, access equipment and scaffolding.
- Replace all manhole or access covers in a secure state.
- Ensure that equipment is either brought back into service or made safe by disconnection and isolation as appropriate.
- Ensure all doors, gates or other accesses to restricted areas are secured.
- Return all keys to the Campus Estates and Facilities Office.
- Return all "Permits to Work" to the Authorised Person who issued the permit.
The Authorised Person will check that the work has been properly completed, all safety precautions have been taken and that all systems are made safe or have been brought back into service.
- For CDM projects, ensure all applicable files and manuals are produced for the handover meeting, with any outstanding documentation provided at the earliest opportunity thereafter (this should not be greater than four weeks after

- practical completion of the works). The files / manuals are to be identified by the University's building name, identification number and description and is to be made available as: 2 x electronic copy and 1 x hard copy.
- For maintenance activities and non-notifiable works, information should be delivered directly to the University Representative. Any certificates included must be original.

7.1 Health and Safety File

The health and safety file is required for CDM works involving more than one contractor and is defined as a file appropriate to the characteristics of the current project, containing relevant health and safety information to be taken into account during any subsequent project(s).

The file must contain information that is likely to be needed to ensure health and safety during any subsequent work such as maintenance, cleaning, refurbishment or demolition.

NOTE: It is possible that a single page file is sufficient for smaller projects.

7.2 Operations and Maintenance (O&M) Manuals

The building owner's manual, or operation and maintenance manual (O&M manual), contains the information required for the ongoing operation, maintenance, decommissioning and demolition of a building.

The University expects the Operations and Maintenance (O&M) Manuals and Health and Safety file to be separate, stand-alone documents.

7.3 Fire Safety Manual

Where a building is erected or extended, or has undergone a material change of use, a package of specific fire safety information is to be produced by the Contractor. This is to be a separate document from both the Health and Safety File and O&M Manuals. This should incorporate 'as built' information which records the fire safety design of the building or extension and must be assembled and presented at the time of handover.

The fire safety information provided should include all fire safety design measures in appropriate detail and with sufficient accuracy to assist the University to operate and maintain the building in reasonable safety. Where a Fire Safety Strategy or a preliminary Fire Risk Assessment has been prepared these should also be included.

8 Acceptance of Requirements

All Contractors must sign a copy of the "Acceptance of Regulations" (See Appendix 1) to confirm they have read these guidelines and fully accept the requirement fully to abide by them.

Appendix 1 – Acceptance Signature Sheet

All Contractors must sign a copy of this form to confirm that they have read these guidelines and fully accept the requirement to abide by them. No works must commence until this acceptance is confirmed and relevant permit(s) to work have been issued.

Main Contractors/Principal Contractors must ensure that all of their staff, contractors and subcontractors are made aware of the relevant sections/content of these guidelines, during their recorded inductions and that all works are planned and executed in accordance with these guidelines. Failure to comply with these guidelines and rules may result in a contractor and/or their operatives being asked to cease work and, in the event of serious breaches, may result in the contractor no longer being able to undertake any work on the University's premises.

On behalf of (Company Name).....

I confirm that I have received, read and understood the *University of Greenwich document “Safety Health and Environmental Requirements for Contractors”*

Printed name.....

Signature.....

Position held within company.....

Date.....

The signed acceptance must arrive prior to first contract and for any subsequent revision thereafter.

This page **ONLY** must be completed and returned to:

EFD Safety and Compliance Manager
University of Greenwich
Flat 48 Aragon Court
Avery Hill Road
Eltham
London
SE9 2UG

Or e-mailed to efsafety@greenwich.ac.uk