



HEALTH & SAFETY PERFORMANCE STANDARDS

INTRODUCTION

Angus Council as the Employer is committed to improving the Health & Safety of persons working on or affected by construction works carried out on land or properties owned or run by the Employer.

As part of this process the Property Division of the Communities Directorate have produced the following "Health & Safety Performance Standards". These "Standards" are issued as a loose leaf document in order that any updates or additional standards can be easily incorporated. The document embodies good practices and procedures with regard to Health & Safety in construction work.

Please ensure you, and any subcontractors you employ, are aware of and take cognisance of the contents of this document. As any updates or amendments are issued please ensure these are incorporated in the "Standards".

All tender documents issued by the Employer incorporate reference to these "Standards" and all Contractors selected for inclusion on tender lists will be required to take cognisance of the aforementioned "Standards".

Nothing contained in the "Standards" shall overrule, set aside or in any way alter your statutory liability to carry out Works in accordance with all current Health & Safety legislation.

Additional copies of the document can be obtained by applying in writing to Service Manager Property, Angus Council, Bruce House, Wellgate, Arbroath DD11 3TP. A charge will be made for this service and applications for copies must be accompanied by a cheque for the appropriate amount made payable to "Head of Corporate Improvement & Finance, Angus Council".

I am sure you will agree we can continue to work together to improve the Health and Safety of persons affected by construction works within the boundaries of Angus Council and thank you in advance for your anticipated assistance in reducing or eliminating dangerous occurrences on building sites.

Kenneth A Brown
Service Manager Property

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DEFINITIONS, COMPLIANCE ETC.

D005. DEFINITIONS

For the purposes of this document the following terms are defined:

Contractor/s	this term covers the Contractor at both pre and post contract stages and covers building, building services and other contractors undertaking contracts for the Employer
Person in Control	the person responsible for operating the establishment in which the work is being carried out. For example the Person in Control of a school building would be the Head Teacher.
Health & Safety Performance Standards	the relevant Acts, Regulations, Health & Safety Executive and other publications referred to and the specific requirements of the Employer all as contained within this document.

D010. COMPLIANCE

The Contractor must take cognisance of these Health & Safety Performance Standards when engaged on work for the Employer. Appendix "A" is provided as a summary of the documentation issued by bodies other than the Employer and the Contractor will be held to be fully conversant with the requirements of same.

The document contains references to the relevant Acts, Regulations, Health & Safety Executive and other publications together with additional requirements of the Employer where appropriate and must be read in conjunction with the Pre-Construction Information. Where Contractors are required to submit Method Statements (i.e. safe working practices which will be adopted to minimise specific risks) they must take account of the requirements contained herein. Where Method Statements do not conform to the requirements laid down in this document the Contractor risks failure to comply with the requirements of the tender documents.

Method Statements, where required, will not be held to comply if they contain statements e.g. "Procedures will comply with the Employer's "Health & Safety Performance Standards". The Contractor will be required to detail specific practical procedures related to the particular circumstances identified to demonstrate that suitable procedures and sufficient resources will be employed in order to reduce or eliminate identified risks. Safety procedures detailed in submitted Method Statements, if acceptable, must be carried through in practice.

These Health & Safety Performance Standards are based on publications produced by HSE and others, supplemented by additional standards required by the Employer, and Contractors must make themselves entirely familiar with all publications referred to and all other procedures and requirements detailed herein. All tenders submitted by Contractors for all Works issued by the Employer will be deemed to include for all costs necessary for executing the Works in recognition of these requirements, whether specifically referred to in the tender documents or not.

Nothing contained in these Standards shall overrule, set aside or in any way alter the Contractor's statutory liability to carry out the Works in accordance with all current Health & Safety legislation.

D015. TYPES OF CONTRACT

The Employer owns and operates a wide variety of buildings, used as public housing, offices, primary and secondary schools, libraries, sports centres, factories, social work homes etc. While the safety principles will apply in all buildings, nevertheless each type will have its own special problems. For example, in primary schools continuous awareness of the inquisitiveness and unpredictable nature of young children must be maintained and special care taken to ensure their safety and security.

The types of work likely to be encountered can be broadly classified as follows:

- 1) Work on an existing site or building which can be completely separated, by means of barriers, screens, fences, etc., from accommodation which must remain in use throughout the course of the contract.
- 2) Work within or around existing buildings where it is not possible to completely isolate the building operations from the Employer's operations.
- 3) Construction of a new building on a "greenfield" or cleared site
- 4) Work in a completely vacated building

or any combination of the above.

D020. CURRENCY OF PUBLICATIONS

All publications, Acts and Regulations referred to within this document shall be held to be the latest edition available during the execution of the relevant works

MANAGEMENT OF THE WORKS

M005. HEALTH AND SAFETY POLICY

The Employer has determined that prior to the issue of the acceptance of tenders for contracts for building and related services, all Contractors employing five or more persons will be required to submit a copy of their safety policy to the Service Manager Property for inspection prior to commencement of the works, unless such statement has previously been submitted and approved.

M007. RECORDS AND NOTICES

The Contractor will be required to keep and maintain all records, forms and reports required by statute (those relating to scaffolding, lifting equipment etc.) together with all other records required under the contract and must display all appropriate statutory notices and posters. Where a project falls under the auspices of CDM, the Form F10 (notification to the HSE) **must** be displayed on-site. The construction phase health and safety plan should also be available for reference.

These records must be made available for inspection when required .

M010. PRE-START MEETING

The Conditions of Contract for a particular project will specify the main requirements and which provisions of The Construction (Design and Management) Regulations 2007 apply.

Prior to the commencement of work the Contractor must attend a pre-start meeting with the Architect/ Contract Administrator to finalise his Health & Safety Plan, if applicable, or his proposed method of working arrangements in order to ensure the safety of all persons affected by the Works. The Person in Control of the establishment will normally attend this meeting to ensure the Contractor's proposals meet with their requirements and the Employers' Safety Personnel may also attend the pre-start meeting. It must be stressed that any procedures required to suit the establishment will be deemed to be included in the Contractor's tender for the Works and no extra will be allowed if the Contractor has failed to determine these factors during the tender stage.

The agreed procedures will be closely monitored during the course of the Works.

M015. COMMENCEMENT OF WORK

When visiting any of the Employer's properties either preparatory to or when commencing any work, Contractors must first report to the Person in Control to notify their presence and to complete the property "visitors book" showing arrival and departure times, reason for attending the premises and the names, designations and numbers of all Contractor's staff. Where the contract documents gives the Contractor control of access to and egress from the site the Contractor shall operate and maintain a site log which shall record the above information and which must be available for examination at all times.

M020. VISITORS TO SITE

Architects, Engineers, Maintenance Officers, Quantity Surveyors, Clerks of Works and others officially engaged in the inspection and administration of the contract Works will make regular visits to site as part of their duties. The Employer's Safety Personnel may also visit the site from time to time. Those directly employed by the Employer have been instructed to report to the Contractor and the Person in Control on entering the site and advised on general personal safety precautions, such as protective headgear, clothing, etc.

The Contractor must ensure, however, that these visitors are advised of any hazardous Works or circumstances to avoid or where care must be exercised. Whenever possible the Contractor should ensure any visitors are accompanied during their inspections.

Requests for visits to sites or building operations from other Employer's staff or Councillors will be dealt with through the Architect/ Contract Administrator in order that a suitable date and time can be arranged for access. The same general arrangements will apply as set out above but the visitors must be accompanied at all times when on site.

Casual visitors must be refused access to the site unless the Contractor is completely satisfied that their safety and well-being can be safeguarded.

The names and status of all visitors to the site should be entered in the site log, together with the times of arrival and departure.

The Contractor should ensure that appropriate measures are in place to prevent unauthorised access to the site.

M025. EMPLOYER'S STAFF

The Contractor is not at liberty to enlist the services of any of the Employer's personnel to assist in the execution of the Works.

M030. CONTRACTORS STAFF

The Contractor shall provide, and ensure that his staff wear at all times, photo-identification cards, dated and signed by the bearer, in a form approved prior to the commencement of the contract by the Architect/ Contract Administrator. It is an essential condition of the contract that all the Contractor's staff must be in possession of an appropriate photo-identification card prior to the commencement date. Any person who is not in possession of a valid identity card shall be refused admittance to and/or be required to leave the site by the Architect/ Contract Administrator. After the commencement date new starts will be permitted admittance for a period of three days only on production of a valid temporary identity card.

The provision of identification cards required in terms of this clause shall be at the sole expense of the Contractor.

The Contractor's attention is also drawn to The Protecting Vulnerable Groups Scheme which was established by the Protection of Vulnerable Groups (Scotland) Act 2007 (PVG Act) and came into force in February 2011. The scheme replaces enhanced disclosure for individuals working with vulnerable groups.

The PVG Act introduces a new concept of "regulated work" for children and vulnerable adults and this includes activities undertaken within specific types of establishments.

Angus Council delivers services through its employees, agents and contractors, which the Council considers to be "regulated work" outwith and within properties which are deemed to be establishments under the Act.

The Council therefore considers it is appropriate to inform you of these likely circumstances and to draw to your attention your requirements under the PVG Act.

A review has been undertaken to determine the council properties which are considered to be specified establishments in accordance with the PVG Scheme.

A review has also been undertaken of the obligations of contractors, and consultants, and their employees when undertaking property related activities within scheme specific establishments for Angus Council.

It is considered that there will be some occasions where some contractor's, and consultant's, employees and their immediate line managers will need to comply with the requirements of the PVG Act due to the undertaking of "regulated work".

It is essential that all contractors, and consultants, employed through the Property division, on behalf of Angus Council; are aware of this legislation and the potential implications for their employees and that Angus Council expects that they will fully comply with all their legislative obligations including those introduced by the PVG Act.

Angus Council wrote to all contractors, and consultants, in July 2011 advising them of the implications of the Act. A copy of this letter is available for reference in Angus Council's Procurement Guidance on the Council's Internet website @ <http://www.angus.gov.uk/ac/documents/ProcurementGuidancePSD.pdf>

A list of Angus Council "specified establishments" is available on Angus Council's Internet website @ <http://www.angus.gov.uk/contracts/PVGList2011-12.pdf>.

Guidance is provided by Disclosure Scotland on their Internet website @ <http://www.disclosurescotland.co.uk/>.

PVG Scheme guidance is provided by Disclosure Scotland on their Internet website @ <http://www.disclosurescotland.co.uk/guidance/index.html>

The Contractor shall be responsible for informing the Architect/ Contract Administrator if any of the staff employed on the site have been convicted of a criminal offence prior to the employee or employees in question being allowed access to the site or in the event of an existing employee being convicted of a criminal offence. The Contractor must disclose to the Architect/ Contract Administrator full details of all convictions of staff to be employed on the site, including sentences imposed, which are not spent convictions for the purposes of the Rehabilitation of Offenders Act 1974.

The Contractor shall ensure that his staff whilst on the sites:

- a do not attend work under the influence of alcohol and/or illegal substances
- b do not consume alcohol and/or illegal substances
- c do not have in their possession alcohol and/or illegal substances

Contractor's staff who are reasonably suspected of being under the influence of alcohol and/or illegal substances prior to the commencement of the Contractor's normal working hours will be refused entry to the site.

Contractor's staff:

- a are strictly forbidden to bring onto the site any unauthorised persons or animals during attendance on sites in connection with their duties.
- b shall not authorise removal of or receive any material, furniture, equipment and/or product or stationery belonging to or consigned to the Employer unless previously agreed with the Architect/ Contract Administrator
- c shall not remove, borrow or lend any property or equipment belonging to or consigned to the Employer
- d shall not read, copy or remove for any reason any file, correspondence, photographs, literature or any other document of the Employer
- e must observe an acceptable standard of discipline and any staff causing distress to site users, visitors, or other Contractor's staff or colleagues by aggressive behaviour, actions or choice of threatening language will be required to leave the site.

Any breaches will lead to the particular employee/s of the Contractor being removed from the site. The future role of any such employee/s in connection with the contract will be determined by agreement between the Architect/ Contract Administrator and the Contractor.

The Contractor shall keep the Architect/ Contract Administrator fully informed about industrial relations and give the maximum possible advance warning of prospective industrial action by his staff or by his suppliers of goods and services.

M035. DUTY TO PROTECT

It is emphasised that under Section 3 of the Health and Safety at Work etc. Act 1974 the Contractor has a duty to protect persons other than his own employees during the course of the work.

This duty embraces the occupants of the building and the general public.

M040. DELINEATION OF, ACCESS TO AND USE OF THE SITE OR WORK AREA

Access to and exits from work areas or sites shall be defined and, where required, screened or fenced and properly maintained.

The Contractor must confine his staff, plant, equipment and temporary accommodation to the work area agreed and on no account enter other parts of the site or buildings, or use any of its equipment or facilities, e.g. toilets, car parking, ladders, plant, etc., without the prior approval of the Architect/ Contract Administrator. Particular care must be exercised in specialist areas such as science rooms, laboratories, computer rooms, workshops, homecraft areas, kitchens, etc. Always check that it is safe to enter before doing so and exercise care while carrying out any work.

Never enter areas where the radiation warning sign is displayed without first consulting the Person in Control and follow their instructions fully.

Appropriate notices must be posted:

- a) to clearly indicate the site or Works access/exit to the workforce, visiting tradesmen, delivery vehicles, etc.;
- b) to warn occupants and users of the building that the building site or area is out of bounds and dangerous.
- c) that work is being carried out in the immediate vicinity

If any difficulty is experienced in preventing unauthorised access to the site or work area by the building users, report this to the Architect/ Contract Administrator immediately.

When work is authorised in occupied areas of the building, exercise care in the placing and use of ladders, materials, tools, etc., in doorways, corridors, on staircases and particularly when working overhead. Where there is any doubt as to safety, the Architect/ Contract Administrator must be consulted and barriers, bollards and ropes and appropriate warning notices used to identify and isolate work areas.

The Contractor must ensure that all entrances and exits and fire escape routes are kept clear at all times of materials or debris arising from the Works.

Rubbish or debris must not be allowed to accumulate on the site and must be removed on a regular basis. Where the use of skips is employed to dispose of rubbish these shall be suitably protected from access by all persons at risk. Any damage caused by materials removed from such skips by unauthorised persons will be held to be the responsibility of the Contractor. In areas of high risk the contract documents may require the use of lockable closed skips.

The successful Contractor will be required to liaise directly with the Person in Control of the property regarding access arrangements particularly with regard to unusually high, long or wide loaded vehicle access.

The location of temporary spoil heaps, temporary accommodation, storage of materials and the like must be agreed with the Architect/ Contract Administrator prior to commencement of the Works.

M045. METHOD AND SEQUENCE OF OPERATIONS

Specific obligations and restrictions imposed by the Employer will be detailed in the tender documents and Contractor's must comply in all respects with same, including demonstrating compliance through method statements, where appropriate.

M055. ROADS AND FOOTPATHS

Avoid the creation of traffic hazards, such as the blocking of junctions and footpaths, restriction of site lines, indiscriminate parking, unloading of materials, etc. Where this is unavoidable the appropriate authority must be consulted and adequate warning signs, coning off, physical barriers, etc. installed, as required.

All temporary crossings of roads, pavements and footpaths required, both outwith and within the site boundaries are to be formed by the Contractor, including giving proper notices and paying of all fees in connection with same and together with the reinstatement of all such on completion.

No work may be carried out or materials stored on a public road or footpath without the approval of the appropriate authority. Even then the precautions and protective measures outlined must be strictly applied.

The same conditions will apply to work on sewers, water pipes, etc. and no work on these shall be carried out without prior approval of the appropriate authority.

Keep roads and footways clear of mud, loose material, etc. Clear away any deposits as soon as they occur.

Avoid the creation of slippery or icy conditions at all times.

Avoid damage to roads and footpaths but, if it occurs, provide adequate warning signs and protection and repair immediately.

Post warning notices advising of dangers.

During the hours of darkness mark all work, excavations, barriers, hazardous conditions, etc. with warning lamps.

M060. SITE OFFICES AND MATERIAL STORAGE

The Contractor will not be permitted the use of the existing properties for temporary accommodation or for the storage of materials and must make his own arrangements for all necessary temporary facilities for the provision of site office accommodation and for the safe and secure storage of materials. Contractors will be deemed to have included in their tenders for all costs in connection therewith.

All areas used for the siting of temporary accommodation, spoil heaps etc. must be agreed with the Architect/ Contract Administrator prior to commencing on site.

All Contractor's temporary accommodation must be located at a safe distance from any occupied building or building under construction and the space between shall be kept open. The location of all such temporary accommodation must be agreed with the Architect/ Contract Administrator prior to commencement of the works

Petrol, oil, solvents or other flammable materials must not normally be stored in any permanent building or building under construction. Materials in use shall be moved to store at the end of each working day.

The same condition will apply to paint and paint thinners on large contracts or where suitable outside storage can be provided. In certain instances inside storage may be approved by the Architect/ Contract Administrator for limited quantities of material, provided that the storage area can be locked off and does not contain electrical switchgear or apparatus.

The storage of non-combustible materials within any permanent building will also require the prior authorisation of the Architect/ Contract Administrator. All materials thus stored must be properly stacked, without projecting items, and free of hazard to the users of the building. On no account, however, must any materials be stored in corridors, stairways, circulation areas, escape routes or work areas or in manner that will hinder access to fire extinguishers, fire alarm point or emergency exits.

No material or plant shall be stored or operated on flat roofs without the approval of the Architect/ Contract Administrator.

Materials required for immediate use, including sand, gravel, etc., must be deposited with due regard to fire protective installations, hydrants, valves, general circulation and working areas, emergency exits, doorways, drives, roads, etc., which must be kept clear at all times.

M065. TEMPORARY PROTECTIVE MEASURES AND SITE SECURITY

The Contractor must take all measures which he deems necessary to give proper warning and protection to the public, users of and visitors to the site of any hazard or obstruction caused by the carrying out of the Works. Erect warning notices advising of dangers and safety measures to be employed.

Where specific requirements for temporary fencing and screens are detailed in the tender documents these must be provided complete with all necessary gates, barriers, barricades, warning notices, lighting and the like. Other fencing and screening is at the discretion of the Contractor and it is stressed this must take account of all necessary precautionary measures required to give proper warning and protection to the public, users of and visitors to the site of any hazard or obstruction caused by the Works.

Ensure that the site and the Works are reasonably secure from unofficial or inadvertent entry by the general public or others, and in particular, children. Particular care must be taken to ensure adequate security measures are in place to prevent unauthorised access to the base of any scaffolding.

M070. EMERGENCY SERVICES

The Contractor must ensure that all operatives and persons visiting the site are aware of the means of contacting the emergency services and must ensure that such means are available at all times during the carrying out of the Works. In certain instances this may involve e.g. the provision of a portable or mobile telephone or radio.

M075. WELFARE FACILITIES, GOOD HOUSEKEEPING, HYGIENE, ETC

The tidiness and cleanliness of the building operations and site are important factors in accident prevention. Regularly sweep up and remove rubbish accumulated in connection with the Works and maintain the cleanliness of access areas, paths, roads, etc. used by others but over which the Contractor may be working or which the Contractor's vehicles and workforce require to use.

Clean up spillages of oil and other substances immediately.

Do not consume food in the Employer's premises without the approval of the Architect/ Contract Administrator. Keep eating and toilet facilities within or adjacent to any occupied building clean and tidy so as not to constitute annoyance or health hazard to the occupants, encourage vermin, infestations, etc.

Contractors will not normally be permitted the use of the existing sanitary and toilet facilities within existing properties and must make their own provisions for this facility, as required by The Construction (Design and Management) Regulations 2007.

The location and nature of welfare facilities must be discussed and agreed with the Architect/ Contract Administrator at the pre-start site meeting and prior to any site establishment works being carried out.

EXECUTION OF THE WORKS

E005. LEAVING WORK SAFE

At the end of a shift or day, or where the works may be left unattended for a period of time, ensure that all Works, including unguarded openings, etc., are left safe and secure. Preferably the area should be locked but, where this is not practicable, work must be left safely tied back, securely propped, etc., barricaded off, warning notices posted and the Person in Control advised of any potential danger.

- Ensure that no sharp edges or protruding nails, screws, etc., are left.
- Remove all spare materials and tools to store.
- Ensure site tidiness at all times.
- Ensure that all machines and services are shut off and that no fire or ignition sources are left.
- Remove all ladders from first lift of scaffolding

E010. WASTE MANAGEMENT

The Contractor's attention is drawn to The Environmental Protection Act 1990 (As Amended) and The Environmental Protection (Duty of Care) Regulations 1991 and the Contractor's responsibilities under this legislation.

The Contractor shall be registered with the Local Authority for the area in which his registered office is situated and must hold a valid Certificate of Registration under the Control of Pollution (Amendment) Act 1989 and The Registration of Carriers and Seizure of Vehicles Regulations 1991 and ensure that his Sub-Contractors also comply with the above regulations.

If requested by the Architect/Contract Administrator, the Contractor/Sub-Contractors shall produce their registration documents and/or "Duty of Care: Controlled Waste Transfer Notes" for inspection.

The removal of any asbestos material must be carried out in conformity with the Control of Asbestos Regulations 2006 and the Contractor must be in possession of a current valid licence to remove such materials. The carriage and disposal of asbestos containing materials must be carried out in accordance with the Special Waste (Amendment) Regulations 1996, the Special Waste Amendment (Scotland) Regulations 2004, the Carriage of Dangerous Goods Regulations (various) and the requirements and guidance provided by the Scottish Environment Protection Agency, where applicable.

See also Clause E060.

E015. NOISE AND POLLUTION CONTROL

Contractors must ensure that all occupied premises and adjacent/ adjoining properties which do not form part of this contract are maintained free from any noise and pollution in the carrying out of the Works. The use of transistor radios or other similar sources of noise will not be permitted.

Do not carry out work or use plant which creates unreasonable noise levels likely to disrupt the Employer's work, other than at times and under conditions agreed with the Architect/ Contract Administrator.

E020. REQUIREMENTS TO AVOID AN OUTBREAK OF FIRE

The Employer operates a policy of "No smoking" in all public buildings and offices and environs and this restriction will apply to the Contractor's operatives when engaged on projects within the Employer's properties.

On no account should smoking occur in unventilated areas and other areas where gas, solvents or other flammable substances may be present or are being worked with.

The Contractor shall comply in all respects with the Health & Safety at Work Act 1974. In addition the Contractor must allow for any special requirements necessary to avoid an outbreak of fire.

Approval must be obtained from the Architect/ Contract Administrator prior to commencing any Works or using any equipment involving naked flames or sparking. Where the approval of the Architect/ Contract Administrator has been gained for the use of any such equipment the Contractor must ensure it is only operated for the minimum time possible.

The Contractor shall in addition take the following precautions in respect of the use of blow lamps, blow torches, welding equipment, cutting equipment, vessels for heating bitumen and all other similar equipment.

- a) All property in the vicinity of the equipment (including whenever practicable the area on the other side of any wall, floor or ceiling) shall be examined to ensure that no combustible material is in danger of ignition either directly or by conducted heat. Any combustible material found to be in danger of ignition shall if possible be removed to a safe distance and returned after operations are completed; if it is not practicable to remove the combustible materials they shall be adequately protected by non combustible material.
- b) Heat equipment shall not be left unattended while in operation.
- c) A suitable fire extinguisher of at least 9 litres or equivalent capacity shall be kept readily available for use.
- d) The area in which work has taken place (including wherever practicable the area on the other side of any wall, floor or ceiling) shall be thoroughly examined for signs of burning.
 - i) at regular intervals during the work
 - ii) within 30 minutes of work involving the application of heat ceasing, and
 - iii) at the end of each working period before the Contractor leaves the site.

The Contractor must also ensure that no accumulation of inflammable debris is permitted to occur on the site and where inflammable liquids or gases are required for the execution of the Works they are to be brought to the site only in sufficient quantities to serve one working day period at a time.

Where the Contractor has been given permission to use an existing/ new heating installation to achieve specific temperature and humidity levels or for drying out the Works this will be subject to the following being to the satisfaction of the Architect/ Contract Administrator :

- a) All pipe holes and service ducts between the boilerhouse, where appropriate, and other apartments must be made firetight to the appropriate fire rating. Fireproof and oil resistant finishes to walls and ceilings where applicable are to be complete.
- b) Boilerhouse must be equipped with fresh air inlet openings of adequate size.
- c) Where steel boilers are fitted all controls are to be operative for the prevention of low temperature flue gas corrosion of the boiler platework.
- d) Fire hoses and safety equipment should be operable where practical.
- e) The permanent lighting installation within the boilerhouse area must be operable.
- f) The Contractor is responsible for any temporary electrical supply (normally 3 phase) to the boiler plant and should make all necessary applications to the Electricity Board for same. He must also ensure compliance with the current Requirements for Electrical Installations in respect of this temporary supply.
- g) The complete installation to be put into "as new" condition before handing over to the Employer.

The Contractor must take all reasonable steps to ensure that the building's fire alarm, fire safety, fire evacuation instructions, etc., are understood and complied with by the Person in Charge, with the Architect/ Contract Administrator in attendance.

Fire extinguishers and other fire fighting equipment belonging to the Employer must not be interfered with or removed from any area of the building without the approval of the Architect/ Contract Administrator.

The use of fire hoses for washing down, etc. is prohibited.

In areas occupied solely by the Contractor, provide and maintain appropriate fire extinguishers and fire fighting apparatus including appropriate signage and instructions.

Remove scrap and debris from work areas at least once each day.

Dispose of oily, greasy or paint soaked rags in covered metal containers.

Exercise great care when using blow lamps, welding and soldering equipment, etc., particularly in close proximity to flammable substances and materials and where cavities in the building occur. Ensure that appropriate fire fighting equipment is always available at the immediate site of the task.

Never use open flames for inspection purposes. Always use a torch or other protected means of illumination.

When portable heaters are in use, ensure they are in good working order, properly used and turned off when leaving a room or area vacant.

E025. FLOOR SANDING

The following safety guidelines should be observed when using floor sanding equipment:

- a) at all times when equipment is not in use it must be switched off/ disconnected,
- b) equipment shall not be allowed to stand unattended on timber floors whether switched off or not and must be removed to a stance on a concrete floor in such instances,
- c) dust bags must be emptied at regular intervals, at completion of each section of the work, and at the end of each working period, and their contents shall be removed from site on a daily basis. Under no circumstances shall any sanding residues be stored inside any building whether contained within dust bags or not,
- d) equipment shall be removed from site at the completion of each working day and returned as necessary the following morning,
- e) immediately following the use of equipment, the work and adjoining areas shall be thoroughly inspected for any signs of combustion, inspected 15 to 30 minutes thereafter, and a final inspection carried out prior to operatives leaving the site at the end of each working period,
- f) the Contractor must ensure at all times that suitable fire fighting equipment is available close at hand for immediate use in the event of fire.

E030. PERSONAL PROTECTIVE EQUIPMENT

The Contractor must comply in all respects with the requirements of the Personal Protective Equipment (PPE) at Work Regulations 1992 together with the provisions of other regulations concerning the use of protective equipment e.g. the Control of Lead at Work Regulations 2002, the Control of Asbestos Regulations 2006, the Control of Substances Hazardous to Health Regulations 2002, the Construction (Head Protection) Regulations 1989, The Control of Noise at Work Regulations 2005 etc.

In accordance with the above provisions the Contractor will be expected to supply protective clothing and equipment as defined in the Regulations and ensure such personal protective equipment is worn for protection of health and safety.

The Contractor's attention is specifically drawn to the Construction (Head Protection) Regulations 1989 which apply to "building operations" and "Works of engineering construction" as defined in The Construction (Design and Management) Regulations 2007.

The Contractor to recognise that "hard hats" must be worn when site operations and conditions warrant their use.

The Contractor to provide appropriate health and safety site signage.

E035. WEATHER CONDITIONS

Ensure that account is taken of the effect of weather conditions on the safety of occupants and the public. In high winds, work, plant and materials, particularly sheets, must be secured to prevent accident or injury to persons or damage to property. Scaffolding boards to be secured in situations where there is a likelihood of high winds and board uplift.

E040. PLANT, VEHICLES, EQUIPMENT, POWER AND HAND TOOLS,ETC

Ensure that all items of plant, vehicles, equipment, power and hand tools used by the Contractor on the Employer's property:

- a) are suitable for the purposes of the work,
- b) are overhauled, adequately maintained and inspected prior to use,
- c) conform in every respect with the requirements of Acts and Regulations governing their use on or within any building,
- d) are switched off immediately after use and, in occupied areas, disconnected and removed to a safe place to avoid being tampered with,
- e) are not left unattended on access scaffolding walkways,
- f) are operated by appropriately trained or qualified personnel,
- g) do not belong to the Employer.

Access systems, including scaffolding, mobile towers etc., must be properly constructed in compliance with The Work at Height Regulations 2005, installed by appropriately qualified personnel, and embody all appropriate ladders/ stairways, handrails, toe boards, etc., be properly tied back and regularly inspected and maintained. Certification to made available on site to confirm that the scaffold is complete, regularly inspected and safe to use. Scaffolding to be left in secure condition during periods when not in use by the Contractor.

Never use mobile scaffolding without stabilisers in position and the brakes operative. Take care to avoid overhead obstructions, electricity cables, etc. always complying with the height restrictions stated in HSE guidance. On no account should mobile scaffolding be moved while any persons are on board.

If access to the work area is to be gained by the use of a ladder it must be properly secured in position and the top must extend at least 1.05 metres beyond it's upper resting place or to provide a suitable handhold.

In occupied areas, ensure the security of hand tools at all times, particularly those with sharp blades. Never leave nails, tacks, screws, etc., lying around and do not place tools where they may fall or become a tripping hazard.

Mechanical saws, cutters, welding and soldering equipment must not be used in occupied areas except with the approval of the Architect/ Contract Administrator and only then when the room or area can be securely locked off.

E042. TEMPORARY ELECTRICAL INSTALLATIONS

The Contractor shall ensure that all aspects of temporary wiring installations, servicing, site lighting and power are carried out in full compliance with the appropriate regulations covered by the Electricity at Work Regulations 1989, BS 7671: 2008 Amendment 1 - Requirements for Electrical Installations (IEE Wiring Regulations Seventeenth Edition) and relevant Codes of Practice.

The maximum voltages of temporary systems are listed below and these restrictions must be complied with at all times when carrying out works of any nature on the Employer's properties:

1. Construction site lighting - 110 volts single phase (55V to earth)
2. Portable inspection lamps (restricted or damp environment) - 25 volts single phase
3. Portable inspection lamps (general) - 110 volts single phase (55V to earth)
4. Semi-permanent flood lighting - 230 volts single phase
5. Portable and hand held tools - 110 volts single phase (55V to earth)
6. Fixed plant - 400 volt three phase
7. Site buildings - 230 volts single phase

All cables serving equipment on site operating at mains voltage must be armoured or mechanically protected type cables.

The installation must be efficiently connected to the Regional Electricity Company's earth where this is provided or alternatively, to a residual current device affording adequate protection to the installation where no service earth is provided.

Contractors using portable electrically operated appliances or temporary power and lighting installations of any kind on the Employer's properties must ensure that these appliances and the temporary installation as a whole complies in all respects with all the relevant statutory requirements for electrical installations on construction sites. Where 230 volts to 110 volts transformers are employed Contractors must ensure that the cable between the 230 volt supply and the transformer is the minimum possible length and all that all extension cables beyond the transformer are suitable for 110 volt current.

E045. VEHICLES

Take every possible care when driving vehicles (including tractors and dumper type trucks) to, from and within the site, particularly adjacent to or over areas occupied by the Employer and more particularly where children or old people are present and ensure that the proposed route has been safeguarded and agreed with the Person in Control.

Reversing is particularly dangerous and must be carried out under direction.

Ensure that vehicles are parked safely, locked when unattended and do not cause obstruction, block accesses, emergency exits, etc.

Take care in muddy, wet or icy conditions.

The Contractor must ensure that staff are fully conversant with the contents of the Health and Safety Executive Guidance Note HSG 144 - The Safe Use of Vehicles on Construction Sites.

E050. AIR POLLUTION AND VENTILATION

Do not carry out operations likely to produce dust, fumes, smoke, mists, vapours, etc., or generally pollute the air within the building without approval from the Architect/ Contract Administrator and only then after adequately sealing off and/or ventilating the area. These operations will include work with asbestos cement, fibreglass, mineral wool, urea formaldehyde foam, paints, etc.

Only approved, clean, serviceable and fireproof tarpaulins, dust or similar sheets may be used to partition off sections, or for suspension from the structure to protect the area below. Where polythene sheeting is used, it must be of an adequate thickness and replaced immediately it becomes damaged.

Nothing shall be done to restrict or prevent adequate ventilation to any occupied area of the building without the prior approval of the Architect/ Contract Administrator.

E055. CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH

In carrying out any Works or operations involving substances covered by the COSHH Regulations 2002, and all subsequent amendments, the Contractor must ensure full compliance with the requirements of the regulations in all respects. Special attention shall be given to the preparation, implementation and notification of risk assessments to safeguard building occupants, operatives, sub-contractors and any other persons affected by the Works and all safety procedures must be brought to the attention of all affected persons and the Architect/ Contract Administrator.

E060. ASBESTOS

All work with asbestos must comply with The Control of Asbestos Regulations 2006, the Asbestos (Prohibitions) (Amendment) Regulations 1999, and various Codes of Practice and Guidance Notes produced by the Health and Safety Commission and Executive. It is imperative that all employees are aware of the operations which can involve asbestos containing materials and that written and approved Assessments are in operation as required by The Control of Asbestos Regulations 2006.

If, during the course of the work on a building owned by the Employer, the Contractor or his operatives identify or suspect the existence of asbestos then work must cease, the immediate area is to be sealed off and the Architect/ Contract Administrator contacted without delay.

The Employer operates procedures on the management of asbestos issues and the Contractor must be fully conversant with the contents of same and comply with all procedures contained therein.

The Contractor is expressly referred to the requirements of the tender documents in this respect and the Supplementary Clause entitled "The Control of Asbestos Regulations 2006".

E062. LEAD

The Contractor must comply in all respects with the requirements of the Control of Lead at Work Regulations 1980.

The Contractor must ensure that whenever contact with lead is anticipated or encountered the following basic requirements are complied with:

- a) adequate washing facilities are provided for operatives
- b) food and drink are not to be consumed in any place liable to be contaminated by lead
- c) adequate protective clothing and suitable clothing storage and changing facilities are provided
- d) notification given to the Architect/ Contract Administrator

The above noted Regulations contain the fundamental requirements needed to control exposure to lead and details of acceptable methods of meeting those requirements, together with the agreed standards are given in the supporting Code.

E065. UREA FORMALDEHYDE FOAM

All materials, work and work methods must comply with the standards laid down by the relevant British Standard Institute's Specification and Code of Practice and amendments thereto. Firms employed on the Employer's premises must be registered under the BSI's Registered Firm Scheme and the National Cavity Insulation Association.

E070. BRAZIERS AND BONFIRES

Braziers will not be permitted inside any building. If used outside, they must be sited well away from the Employer's or adjoining property and a suitable fire extinguisher of at least 9 litres or equivalent capacity shall be kept readily available for use.

Rubbish will not be burnt on site without the permission of the Architect/ Contract Administrator.

E075. SERVICES

Generally

Only qualified and competent tradesmen will be permitted to work on services installations. **The Contractor is expressly referred to the requirements of the tender documents in this respect and the Supplementary Clause entitled “Required Memberships and Registrations”.**

Existing Site Services

Existing live services, including drainage, water, gas, electric, telephones and other mains services shall be maintained in full and efficient working order for the contract period and are to be protected from damage caused by the carrying out of the Works, vehicles and operations.

Fire and burglar alarms, smoke detection and call systems, etc., are installed in many of the Employer's properties. Never interfere with these without authorisation and take every care, particularly during structural alterations, to avoid severing their connecting links or cables or inadvertently activating the systems. Suitable measures must be employed to protect the components of the system e.g. dust covers over sensors, during operations in the location; and covers to be removed immediately thereafter and/ or on completion of the working day.

On no account may the Contractor make use of the Employer's electricity, gas, water or other services installations for any purpose without the approval of the Architect/ Contract Administrator.

It is the Contractor's responsibility to confirm the location of any buried services e.g. electricity cables, gas, or water mains, drains, telephone cables, etc., prior to commencing the works and no excavation, drilling, etc. should take place until location of any such buried services are determined.

Prior to carrying out alteration works within existing buildings the Contractor must take all reasonable steps to determine the location of all existing concealed services affected by the Works

Investigation to confirm the location of such buried or concealed services will be deemed to include checking with all public utilities, checking of “as fitted” drawings if available, use of electronic locating devices etc.

In the event of any damage being caused to buried or concealed services, the location of which could reasonably have been determined or identified, the Contractor will be responsible for arranging for the making good of any such damage and the payment of all costs in connection therewith.

When working on existing gas and electrical installations, on no account must bare wires and temporary circuitry, switchboards, etc., which are or can be made live, be left unprotected and accessible to the users of the building.

Drain pollution and blockage must be avoided. Provide appropriate temporary covers over gullies, etc., particularly in areas where quarry materials are used and stored, or cement and concrete mixing takes place.

Petroleum and oil products, acids, waste fluids, etc. must be safely disposed using appropriate containment systems and must not be disposed of via the drainage system.

Temporary Site Services

When an electricity supply is afforded to the Contractor, it will be for specific, agreed uses and restricted to the points of supply, voltages and times of operation laid down. Similar restrictions will be applied to the use of other services.

All equipment, plant, cable, etc., used for this purpose must be in good condition and in working order, used in accordance with good practice and properly earthed.

Temporary cables or pipes shall be run at high level, below floors or out of reach, secured and maintained in such a way as to avoid risk or inconvenience to the building users

New Services Installations

New gas pipework and joints must be rigorously inspected both before and immediately after commissioning.

E080. OVERHEAD WORKING

No work may be carried out over occupied accommodation, corridors, stairways, paths, roads, play areas, car parking areas, etc., which are in use by the Employer, its employees or the public, without giving adequate notice and taking all appropriate precautions to ensure the safety of persons and property below, as approved by the Architect/ Contract Administrator; including the preparation and compliance with method statements, as appropriate.

Supply, post and maintain appropriate notices indicating that overhead working is taking place.

These precautions will apply equally to large and small Works; for example, a light fitting should not be replaced when anyone is either working in the area or has access to the area under it.

All overhead Works must be kept safe at all times during operations and left safe on completion of the day's work. Secure loose tools, equipment, materials, etc., against falling during general use and in adverse weather conditions. All equipment and materials must be raised and lowered by safe and secured means and not, for example, thrown down. Suspended loads must be lowered to the ground at the end of each day.

No hoisting or lifting of materials, plant, etc., by whatever means will be permitted in areas where the occupants of the building or the public can pass underneath.

Cranes, gin wheels, etc., must be operated in compliance with the Lifting Operations and Lifting Equipment Regulations 1998. They must be positioned and operated clear of areas and buildings occupied or used by the Employer or general public and clear of overhead service installations, particularly electricity.

E085. LIQUID PETROLEUM GAS

Ensure that personnel concerned with the storage and handling of these products understand their physical characteristics and are trained in the action to be taken in an emergency.

On no account will LPG cylinders be allowed to be stored within any building. They should only be stored in the open air, on hard standing, kept free of weeds, at least three metres from any drain and in a secure compound constructed entirely with non-combustible material. Where the compound is merely fenced, this should not be less than two metres high. Any compound must have at least two exits (not adjacent) with opening out doors. Warning notices must be posted. The amount of LPG cylinders stored on site shall be kept to the absolute minimum necessary.

For the purposes of carrying out work within a building, a single LPG cylinder not exceeding 50kg capacity may be used, provided that:

- a) The room or area is unoccupied, adequately ventilated, and barriered off.
- b) The greatest care is exercised and the cylinder and appliances turned off when left unattended for short periods.
- c) No smoking applies in the area. No exposed flame or flammable heat source should be in the area.
- d) That the cylinder is removed from the building at the end of each working day or period, as soon as practicable after the operation has been completed.

Where non-refillable, throw away containers (cartridges) are used, the same precautions must be taken.

E090. BITUMEN AND TAR BOILERS

Setting Up

The siting of boilers must be approved by the Architect/ Contract Administrator in every case. This will be outside at ground level and the area fenced off to prevent access by the users of the building and the general public.

As a general rule, boilers will not be sited or used on roofs. Any exceptions to this rule will be granted by the Architect/ Contract Administrator only after considering the problems of access, construction of the building, the safeguards that can be ensured for the occupants of the building and the Employer, etc.

Before commencing pouring hot bitumen on any roof the Contractor must ensure that the rooms below are vacated. Once it is confirmed that no hazard exists to occupants or persons located in proximity to the site; then work can proceed as normal.

A point of access to any roof will also be agreed, together with any protection required, and all lifting of material must be restricted to this.

The boiler must be set up on a firm, level surface and the gas cylinders set at least 3 metres away. Ensure gas hoses are properly connected and in good condition. In all instances a suitable metal drip tray must be provided having the capacity of one and a third times the volume of the boilers contents. Boilers must be thermostatically controlled and be attended at all times while in operation. All boilers must be fitted with draw-off taps.

No smoking is permitted when using boilers and all other ignition sources must be kept away e.g. naked flames, electrical equipment etc.

Three 5kg fire extinguishers, either dry powder or foam, fully charged and in working order, to be safely positioned in the vicinity of the boiler, always accessible in the event of a fire occurring. Site staff must know how to operate the fire fighting equipment efficiently which must be properly maintained and operable at all times.

Heating

Follow the manufacturer's instructions when firing up the boiler.

Do not exceed the recommended operating temperature.

Avoid splashing when adding more materials.

Keep water away from hot liquids.

Use

Exercise particular care when lifting and handling molten liquids.

Use the draw off tap to remove molten liquids.

Adequate personal protective equipment must be worn when handling molten liquids.

Keep the lid on the boiler as much as possible.

Regularly check the boiler temperature and level.

Carry molten liquids in proper containers e.g. lidded buckets.

Ensure a clear, safe route is maintained from the boiler to the work area.

After Use

Turn off the gas at the cylinders.

Empty the boiler and remove drips or splashes

At All Times

Ensure the boiler does not overheat or run low.

Never leave the boiler unattended, even for a short time.

Never apply direct heat to pipes or valves, or to the outside of the boiler.

Turn off the boiler before transporting the boiler on a lorry or a trailer.

E100. ROOFWORK AND WORKING AT HEIGHT

Generally

The Employer recognises the high level of incidents which occur in the construction industry as a direct result of work carried out on roofs and at height. The safety aspect of these categories of work will be closely monitored in an effort to eliminate incidents of this nature on the Employer's properties.

Prior to commencing works of this nature the Contractor must describe in full detail the proposed methods to be employed during the execution of the Works and must clearly demonstrate that safe means of access to the work area, safe working methods on the work area and safe exit from the work area are planned, put in place and maintained for the period of the Works.

The Contractor must ensure that staff are fully conversant with the contents of the Health and Safety Executive Guidance Note HSG 33 - Health and Safety in Roofwork.

Where work is carried out at heights the following precautions must be taken to safeguard all persons involved in or affected by the operations.

For the purpose of this clause the following definitions apply:

- | | |
|-----------------|--|
| ⇒ Flat roofs | Equal to or less than 10 degrees from the horizontal |
| ⇒ Pitched Roofs | Greater than 10 degrees from the horizontal |

Existing openings and newly formed openings in roof areas must be clearly identified and barricaded off /given edge protection at all times. Signage to be provided.

Suitable roof edge protection must be erected and maintained at all times and every precaution taken to ensure the safety of operatives, building users and members of the public.

While working at an edge the area below shall be barriered off to prevent access by other than the Contractor's employees.

Raising and Lowering of Materials

Before any material is removed from or taken onto a roof the Person in Control must be consulted and the Architect/ Contract Administrator and the Contractor will thereafter agree a suitable access point and a location for any skip prior to the commencement of works. The area or areas to be used for the raising and lowering of materials must be cordoned off and the Contractor must ensure that no persons or vehicles etc., are within the vicinity during operations

Substantial barriers must be erected at a suitable distance around these areas at ground level to ensure the protection of all users of the site from the risk of falling materials.

Adequate roof edge protection at the roof level must be provided around lifting areas and a safe system of raising the materials employed.

Materials must never be thrown from the work area or access system and must be broken into sizes which will not drift if caught by wind. Removal of materials from the roof area must be by means of enclosed rubbish chutes or enclosed hoists.

Protection of Others

All materials, tools and equipment must be stored at least 1 metre from the roof edge or any rooflight or other opening in the roof. If work is being carried out above an access to or exit from a property the Contractor must provide a substantial covered means of access/ exit. This shall take the form of a timber framed and plywood covered or prefabricated solid enclosure having solid canopy and sides and must project an adequate distance from the face of the building to ensure the safety of the building users. In addition warning signs must be posted warning of the overhead working. When works are being carried out immediately above any such access or exit the Contractor must have personnel in attendance to supervise and direct persons using the building when operations are in progress.

The Contractor must also ensure that any material with which he is working e.g. bitumen, roof coating, etc., is applied in such a manner that it is contained within the work area.

Training and Supervision

All personnel carrying out roof works must be properly trained and made aware of the dangers involved in this type of work and how to avoid them. All roof work must be adequately supervised and monitored to ensure safe working at all times

Adverse Weather Conditions

In adverse weather conditions work should be suspended unless additional adequate safety precautions are put in place. The Contractor will be required to demonstrate to the Architect/ Contract Administrator in such circumstances the additional safety provisions taken.

Special care must be taken by operatives when handling large slabs of insulation, boards or similar materials and the Contractor must ensure that conditions are not such that the workman can be thrown or blown across or off a roof because of wind gusting.

Working on Pitched Roofs

Full roof edge protection as defined in Health and Safety Executive Guidance Note HSG 33 - Health and Safety in Roofwork must be provided on all roof elevations where work is taking place.

Suitable, purpose-built roof ladders and/ or crawling boards to be used for working on the roof surface. "Home-made" roof ladders must not be used.

Working on Flat Roofs

Prior to commencing work on flat roof areas the Contractor must consider the following:

- a) Will the work involve anyone approaching within 2 metres of an open roof edge?
- b) Are there any unfenced openings in the roof?

Open Roof Edges

If the Contractor considers it is not necessary for anyone to approach within 2 metres of an open roof edge the work area should be defined by the use of adequate barriers and the work supervised to ensure no one works outwith the barriers.

Where it is necessary to approach the open roof edge, roof edge protection in the form of guard rails strong enough to provide support from falling and toe boards will be required to be fitted.

Unfenced Openings

Openings in the work areas liable to be approached must either be protected by guard rails and toe boards as described above or by substantial covers which must be fixed in position. Suitable signs, highlighting the nature of the danger must also be erected.

Working on Fragile Roofs

Fragile materials may be used in the complete covering of a roof structure or may only form part of the roof covering e.g. rooflights.

The Contractor must take the following principle precautions when working on fragile roof materials:

- a) Prior to commencing work on the roof area positively identify any fragile areas. The absence of warning notices must not be regarded as evidence that the roof is not fragile.
- b) If the fragile material is in the form of a rooflight and it is necessary to approach within 2 metres the material must be protected by guard rails or by a substantial cover fixed in position and marked with a suitable sign indicating the danger.
- c) If the whole surface of the roof is fragile precautions must be taken to ensure no-one steps onto the fragile surface. At least two crawling ladders/ boards must be used to span the purlins. The use of single scaffold boards is not permitted. Crawling boards must be at least 430 mm wide and secured to prevent movement.
- d) If work is to be carried out in a valley gutter or the gutter is to be used as a means of access to the work area, and the materials next to the valley gutter are fragile, protection against falling must be provided.

Use of Safety Belts/ Harnesses

Where the Contractor proposes to use safety belts/ harnesses either in addition to other safety measures or as a sole means of protection from falling this proposal must be discussed in full with the Architect/ Contract Administrator. The following points must be considered prior to the use of this type of equipment:

- a) Is the proposed anchorage point suitable to withstand the likely shock loading caused by a fall?
- b) Is there safe access while approaching, connecting onto and disconnecting from the anchorage point?
- c) Is the anchorage point suitably positioned to enable all the roofwork to be undertaken safely?
- d) Safety belts and harnesses should only be used where rescue from the harness system itself can be effected within the recommended time.

Where this form of fall protection is chosen, the “free fall” distance should not be more than 2 metres for a harness or 0.60 metres where a safety belt is worn. Any operatives using this type of equipment must be properly trained and aware of its limitations.

The Contractor must indicate his proposed anchorage points and demonstrate the suitability of same to the Architect/ Contract Administrator. The Contractor must also repair the anchorage point after removal of the safety belt/ harness to the satisfaction of the Architect/ Contract Administrator.

The Contractor is expressly referred to the requirements of the tender documents in this respect and the Supplementary Clause entitled “Working Platforms”.

E105. EXCAVATIONS

Excavations Generally

All excavation work must be properly planned, managed, supervised and carried out by safe means in order to prevent accidents. Contractors are expressly directed to CIRIA Report 97 “Trenching Practice”.

All excavations, once commenced, must be effectively fenced or railed off or, where necessary, completely covered over with solid proprietary steel sheeting and warning notices posted. After dark, excavations along or adjacent to user or public accesses, etc., must be marked by warning lamps.

Similarly, when excavated material, debris, etc., cannot be immediately removed from the site, it must be heaped so as not to impede or restrict access ways and marked by warning lamps during the hours of darkness.

Do not allow water to accumulate in excavations or elsewhere which might prove a danger to the occupants or public.

Gangways must be provided for crossing trenches – operatives should be forbidden from jumping excavations.

Before commencing any excavations adequate precautions and measures must be taken to avoid risks from the following principle factors:

- a) Collapse of excavations:
 - ⇒ Sides and ends of excavations must be prevented from collapse by battering to a safe angle or by providing adequate timber, sheeting or other proprietary support systems. The Contractor must ensure there is sufficient suitable materials, together with a buffer stock, to support the excavations prior to commencing excavation works. Where soil and sheeting arrangements allow, install supports prior to excavating to final depth (i.e. typically install support when trench less than 1.2m deep).

- ⇒ Persons must not enter unsupported excavations or work ahead of temporary supports.
- ⇒ If the work involves bending or kneeling in the excavations support systems will be required to shallow trenches.

b) Materials, people and vehicles falling into excavations:

- ⇒ Materials or spoil must not be stored in close proximity to sides of excavations. At least 1m away.
- ⇒ Edges of excavations must be protected against materials and persons falling through the provision of toe boards. If the excavation is 2 metres or deeper substantial barriers must be provided e.g. guard rails.
- ⇒ Hard hats must be worn when working in excavations.
- ⇒ Vehicles must be kept away from excavations wherever possible and brightly painted barriers must be provided to clearly identify the edges of excavations.
- ⇒ Where it is necessary for vehicles to approach excavations in order e.g. to tip in materials the sides of excavations must be adequately supported and secured and stop blocks provided to prevent over-running.

c) People being struck by plant:

- ⇒ Plant operators must be competent persons.
- ⇒ Workers must be kept separate from moving plant. Where this is not possible safe systems of work must be put in place and supervised to ensure compliance.
- ⇒ Always face plant and excavators.

d) Undermining nearby structures:

- ⇒ Ensure excavations do not affect the footings of scaffolds or the foundations of nearby structures.
- ⇒ Determine whether affected structures require temporary supports prior to commencing excavation works. If considered necessary, in consultation with the Architect/ Contract Administrator, a survey of the foundations should be carried out and the services of a competent structural engineer should be sought.

e) Contact with underground services:

- ⇒ Check for obvious signs of underground services e.g. cable markers, valve covers, patching of service trenches etc.
- ⇒ Use locators to trace routes of services, clearly mark out the route and identify with warning signs and other protective measures.
- ⇒ Ensure the person supervising the excavation work has been provided with plans of affected services and that the locations are clearly marked. All persons employed to carry out excavation work must be aware of safe digging practices and emergency procedures.

f) Access to the excavations:

- ⇒ Adequate ladder or other means of safe access to and exit from the excavations must be provided.

g) Fumes:

⇒ Petrol or diesel engined plant must not be placed in or near the edges of excavations unless fumes can be ducted away or the area can be adequately ventilated.

h) Accidents to members of the public:

⇒ Excavations in areas accessed by the public must be adequately fenced off and covered over. See also second paragraph of this clause.

The above notes are provided for guidance and it is the Contractor's responsibility to ensure proper planning of excavation works to avoid risks caused by the above principle factors noted above together with any other factors specific to the excavation works being carried out. In this respect the Architect/ Contract Administrator may require the Contractor, prior to commencing excavation works, to provide a plan of operations demonstrating forward planning to ensure a safe means of working relative to this aspect of the Works.

Supervision

A competent person must supervise the installation, alteration or removal of excavation supports and the competent person must give clear instructions to all persons working in or near excavations with regard to working safely. Operatives should not enter excavations or trenches before they have been inspected and considered safe by the Contractor.

Inspecting Excavations

A competent person must inspect excavations:

- a) at the start of each shift before work commences,
- b) after any event likely to have affected the strength or stability of the excavation, and
- c) after any accidental fall of rock, earth or other material.

A written report should be made after most inspections and the Architect/ Contract Administrator may ask to examine the Contractor's written records at any time during the excavation stage.

If an inspection shows any excavation to be unsafe work should be suspended on the excavation until the excavation can be made safe.

E110. MANHOLES AND HATCHES

Never leave open manholes unattended unless protected on all sides by continuous purpose-made safety barriers. Never prop manhole covers.

E112. WORKING IN CONFINED SPACES

The Contractor must comply in all respects with the requirements of The Confined Spaces Regulations 1997 where works are to be carried out in a "confined space" and it is likely that the hazards described in the Regulations are to be encountered.

The two principle defining features of a "confined space" are as follows:

- a) it is a place which is substantially (though not always entirely) enclosed
- b) there will be a reasonably foreseeable risk of injury from hazardous substances or conditions within the space or nearby

The most likely hazards are listed in the Regulations and are repeated below for information:

- a) Flammable substances and oxygen enrichment
- b) Toxic gas, fume or vapour
- c) Oxygen deficiency

- d) The ingress or presence of liquids
- e) Solid materials which can flow
- f) Presence of excessive heat

and it is stressed that a hazard can be introduced to a substantially enclosed space that otherwise would be safe.

It is also stressed that a number of other hazards dealt with under separate Regulations can be encountered when entering or working in confined spaces. The Contractor will be held to be conversant with and must comply additionally in all respects with the requirements for dealing with these hazards when encountered in confined spaces e.g. Electricity at Work Regulations 1989, Provision and Use of Work Equipment Regulations 1992, etc.

1. Persons should not enter a confined space without instruction from a supervisor.
2. Atmosphere monitoring equipment should be available for use by a competent person.
3. Persons should not enter the space unless it is safe to do so and the atmosphere monitoring must continue whilst operatives are present.
4. All necessary safety and rescue equipment should be readily available on site and can be used by trained and competent persons.
5. No less than 2 persons should work on a confined spaces operation.
6. Ensure that assistance is readily available – by telephone or radio communication.

E115. CARTRIDGE TOOLS

Cartridge tools will not be allowed on the site or within any building without the approval of the Architect/ Contract Administrator. The operator must be trained and competent in their use, the tools properly and regularly maintained and fitted with a guard or shield suitable for the work.

Cartridge tools may only be used in an area, plus a safety zone, which is barricaded off to prevent persons entering and must never be used when there is the possibility of risk to the occupants and users of the building. Never carry loose cartridges or leave them lying about. Return the tool and cartridges to a locked metal container when not in use.

E120. INJURY, FIRST AID, ETC

Report to the Architect/ Contract Administrator and the Person in Control any injury received by any member of the Contractor's workforce, or any other person, on any premises occupied by the Employer during the course of construction works. The First Aid facilities in the Employer's establishments are available for use during normal working hours, but this does not relieve Contractors of their responsibility to provide facilities.

In cases of more serious injury, the Person in Control will, if required, assist in obtaining medical assistance or ambulances.

E125. POISONS

Poisonous solvents, chemicals, weedkillers and other materials are regularly used on building Works. Keep bottles and containers in a safe, locked, identified place-never leave lying about, particularly in schools, and on no account make use of soft or other drinks bottles for other than the use for which they were originally intended.

E130. SAFETY IN WINDOW CLEANING

The Contractor should ensure both he and his employees are fully conversant with the contents of Health and Safety Executive's Information Sheets MISC611 and MISC 613 "Safety in Window Cleaning".

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APPENDIX “A”

DOCUMENTATION ISSUED BY BODIES OTHER THAN THE EMPLOYER

A005 ACTS AND REGULATIONS

The following list of Acts and Regulations are provided as an “aide-memoir” to Contractors and is not intended to be a sole and finite list.

Contractors are required to comply with the following Acts of Parliament:

- The Health and Safety at Work etc. Act 1974
- The Environmental Protection Act 1990 (As Amended)
- The Control of Pollution (Amendment) Act 1989

Under the Health and Safety at Work etc. Act 1974 the following regulations must be specifically complied with:

Construction (Design and Management) Regulations 2007	The Control of Noise at Work Regulations 2005
The Control of Asbestos Regulations 2012	Personal Protective Equipment (PPE) at Work Regulations 1992
The Control of Vibration at Work Regulations 2005	Provision and Use of Work Equipment Regulations 1998 (PUWER '98)
Control of Lead at Work Regulations 2002	Health and Safety (Safety Signs and Signals) Regulations 1996
Control of Substances Hazardous to Health Regulations 2002	
Electricity at Work Regulations 1989	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995
BS 7671: 2008 Amendment 1 - Requirements for Electrical Installations IEE Wiring Regulations Seventeenth Edition)	Confined Spaces Regulations 1997
Management of Health & Safety at Work Regulations 1999	Construction Head Protection Regulations 1989
Gas Safety (Installation and Use) Regulations 1998	Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
Gas Safety (Management) Regulations 1996	Manual Handling Operations Regulations 1992
Health and Safety (First Aid) Regulations 1981	The Environmental Protection (Duty of Care) Regulations 1991
Ionising Radiation Regulations 1985	
The Work at Height Regulations 2005	

A010 HEALTH & SAFETY EXECUTIVE (HSE) PUBLICATIONS

The Contractor must comply in all respects with HSE publications where relevant to the type and nature of the Works to be carried out. A number of publications are listed below which the Contractor's attention is expressly drawn to.

Series	Description	Expressly	Title
HSG	Guidance on the practical application of regulations made under the Health and Safety at Work Act	HSG 6	Safety in working with lift trucks
		HSG 17	Safety in the use of abrasive wheels
		HSG 33	Health and Safety in Roofwork
		HSG 38	Lighting at work
		HSG 47	Avoiding danger from underground services
		HSG 51	The storage of flammable liquids in containers
		HSG 53	Respiratory protective equipment at work
		HSG 65	Successful health and safety management
		HSG 85	Electricity at work: Safe working practices
		HSG 92	Safe use and storage of cellular plastics
		HSG 97	A step by step guide to COSHH assessment
		HSG 107	Maintaining portable and transportable electrical equipment
		HSG 115	Manual handling
		HSG 131	Energetic and spontaneously combustible substances
		HSG 139	The safe use of compressed gases in welding, flame cutting and allied processes
		HSG 140	Safe use and handling of flammable liquids
		HSG 141	Electrical safety on construction sites
		HSG 144	The Safe Use of Vehicles on Construction Sites
		HSG 150	Health and safety in construction
		HSG 151	Protecting the public - your next move
		HSG 155	Slips and trips: Guidance to employers on identifying hazards and controlling risks
		HSG 168	Fire safety in construction
		HSG 170	Vibration solutions
		HSG 173	Monitoring strategies for toxic substances
		HSG 201	Controlling exposure to stonemasonry dust
		HSG 210	Asbestos Essentials – A task manual for building, maintenance and allied trades on non-licensed asbestos work
		HSG 213	Introduction to Asbestos Essentials

A010 HEALTH & SAFETY EXECUTIVE (HSE) PUBLICATIONS cont.

Series	Description	Expressly	Title
HSG	Cont.	HSG 230	Keeping Electrical Switchgear Safe
		HSG 246	Safety in the storage and handling of steel and other metal stock
		HSG 247	Asbestos: The licensed contractors guide
		HSG 253	The safe isolation of plant and equipment
		HSG 258	Controlling airborne contaminants at work
		HSG 262	Managing risks from skin exposure at work
		HSG 264	Asbestos: The survey guide
COP	Approved Codes of Practice (ACOPs) and guidance on regulations	COP 20	Standards of training in safe gas installation
L	Guidance on regulations and Approved Codes of Practice	L 5	Control of substances hazardous to health
		L 8	Legionnaires' disease
		L 21	Management of Health and Safety at Work
		L 22	Safe Use of Work Equipment
		L 23	Manual handling
		L 24	Workplace health, safety and welfare
		L 25	Personal protective equipment at work
		L 56	Safety in the installation and use of gas systems and appliances
		L 64	Safety signs and signals
		L 73	A guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995
		L 74	First aid at work
		L 80	A guide to the Gas Safety (Management) Regulations 1996
		L 81	The design, construction and installation of gas service pipes
		L 82	A guide to the Pipelines Safety Regulations 1996
		L 101	Safe work in confined spaces
		L 102	Construction (Head Protection) Regulations 1989
		L 108	Controlling noise at work
		L 113	Safe use of lifting equipment
		L 114	Safe use of woodworking machinery
		L 117	Rider-operated lift trucks
		L 127	The management of asbestos in non-domestic premises
		L 132	Control of lead at work

A010 HEALTH & SAFETY EXECUTIVE (HSE) PUBLICATIONS cont.

Series	Description	Expressly	Title
L	Cont.	L 140	Hand-arm vibration
		L 141	Whole-body vibration
		L 143	Work with asbestos containing materials
		L 144	Managing health and safety in construction
		L 146	Consulting workers on health and safety
HSR	Health and Safety Regulation Series	HSR 25	Memorandum of guidance on the Electricity at Work Regulations 1989
CS	Guidance notes in the Chemical Safety series	CS 15	Cleaning and gas freeing tanks containing flammable residues
EH	Guidance notes in the Environmental Hygiene series	EH 40	Workplace exposure limits
		EH 75/7	Portland cement dust
GS	Guidance notes in the General series	GS 4	Safety in pressure testing
		GS 6	Avoidance of danger from overhead electric power lines
		GS 38	Electrical test equipment for use by electricians
		GS 46	In-situ timber treatment using timber preservatives
		GS 49	Pre-stressed concrete
MS	Guidance notes in the Medical Series	MS 31	Guidance for appointed doctors on the Control of Asbestos Regulations 2012
		MS 32	Guidance for appointed doctors on the Control of Substances Hazardous to Health Regulations 2002
		MS 34	Guidance for doctors on the Control of Asbestos Regulations 2012
PM	Guidance notes in the Plant and Machinery series	PM 15	Safety in the use of pallets
		PM 29	Electrical risks from steam/water pressure cleaners
		PM 38	Selection and use of electric handlamps
		PM 55	Safe working with overhead travelling cranes
		PM 56	Noise from pneumatic systems
		PM 63	Inclined hoists used in building and construction work
		PM 75	Glass reinforced plastic vessels and tanks

A015 OTHER PUBLICATIONS

The Contractor is also expressly referred to the following publications which the Employer considers represent a comprehensive summary of statutory requirements and good practice:

“Site Safety Simplified” - CITB Construction Industry Training Board

“Site Safe and You - Keep safety in your sites” - The National Joint Council for the Building Industry

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