CONTRACTORS' GENERAL CODE OF SAFE PRACTICE

Date	Issue	Originated by	Check/Review by	Approved by	Issue reference
Sept 2009	Updated	SW Jones	CJ Loosemore	H McCann	A (was 1)
June 2010	New format and content	SW Jones	CJ Loosemore	H McCann	B (was 2)
Aug 2010	New Content	PR Mucklow	CJ Loosemore	CJ Loosemore	C (was 3)
Mar 2013	Update	SW Jones	I Millar	P Mucklow	D
March 2015	Changes highlighted – some other text minor amendments. Environmental update. CDM Changes	SW Jones			E
June 2016	ES updates and LV rules latest	SW Jones			F

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Appendix A - Construction Risk Profile

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Acceptance Form - TO BE COMPLETED, SIGNED AND RETURNED

CONTACTING EMERGENCY SERVICES

Using a public telephone: Dial 999.

Using an internal telephone: Dial 9, which will give you an outside line, dial 999 and specify the service you require.

Note that emergency calls may be made from any University extension, even those normally barred to outside calls.

After calling the emergency services, call Estate Patrol who will coordinate wider University response as necessary.

The general telephone number for Estate Patrol is (01392) 723999 or extension 3999 – **use 722222 or extension 2222 in emergency.**

In the Event of Exchange Failure

If it is necessary to report an emergency while the University exchange is not working:

EITHER dial 999 on a payphone, or mobile phone;

OR go to Estate Patrol Office at Northcote House, The Queen's Drive, which is manned 24 hours a day, 7 days a week.

Internal phone line operate over the data system – emergency phones are available should there be a data system failure.

In all cases in which contact with emergency services is being made, it is important to remember certain basic principles if confusion is to be avoided.

1 KEEP CALM. Ask clearly and concisely for the service you require.

2 GIVE SPECIFIC LOCATION OF YOUR PLACE OF WORK.

3 MEET THE EMERGENCY SERVICE. Send a reliable person to meet the emergency service and act as a guide.

INTRODUCTION

The University of Exeter is a vibrant community of 20,000+ staff students and visitors on the main Streatham Campus, the St Lukes and other campuses, and buildings throughout Exeter.

There are regular open days for potential students where 1,500 or more arrive on campus and major open days attracting up to 10,000 visitors in a day.

As the controller of premises, the University of Exeter (UoE) has a statutory and social duty to ensure, so far as is reasonably practicable, the health and safety at work of all its employees and, further, to take steps to ensure that the activities undertaken by the University do not endanger others who may be affected.

The University's statement of policy on health and safety recognizes these duties and states also that specific arrangements will be made to cater for special risks, either of a permanent nature or which may arise from time to time. In view of the many and varied activities carried out by contractors on University premises, this Contractors' General Code of Safe Practice was introduced. This code makes reference to "Construction Site Safety" (GE700) published by CITB Construction Skills*. It is recommended all contractors have a copy of this available, for general and specific reference, to all personnel at all times.

Works to which this Contractors' Code of Safe Practice relate primarily will be commissioned by Campus Services - Estate Services (ES), Direct Works (DW) or the Director of Grounds. Some works may be commissioned by others within the University.

Estate Services including
Streatham Farm
Prince of Wales Road
EXETER
EX4 4PX
Tel: 01392 724452

Direct Works Manager / Director of Grounds

Campus Services has an Environmental Management System which is certified to ISO14001. We must therefore minimise the environmental impact of our activities, comply with all relevant environmental legislation and prevent pollution. Contractors are encouraged to review CIRIA C692 Environmental good practice on site (third edition) and the Environment Agency Construction and demolition sites, PPG6: prevent pollution guide [or environment section of GE700]

While on site, contractors effectively represent ES and DW within the University and they are expected to behave in a considerate, appropriate and safe manner at all times.

A University campus has characteristics that contractors may not have encountered elsewhere.

A Construction Risk Profile is attached as **Appendix A** highlighting issues relating to the main Streatham campus as an example.

All contractors working on University premises must conform to the provisions of this code. The Acceptance Form at Appendix D must be completed, signed and returned to the relevant office as above.

* PUBLISHERS OF CONSTRUCTION SITE SAFETY (GE700):

CITB Construction Skills
www.cskills.org
Tel: 0344 994 4122

Purpose

The purpose of this document is to outline the procedures for ensuring effective coordination between the work of contractors, the activities of UoE campuses, and addresses how UoE expects sites to be managed.

The code has been prepared to help contractors and their employees work safely and to prevent accidents and injuries to themselves, and University personnel, students, and / or visitors.

All contractors working on site must conform to the provisions of this code. The observance of this code, however, does not in any way relieve the contractor of his legal or contractual obligations. All contractors and their employees should be conversant with any specific safety rules of the college, department or area in which they are working, e.g. in laboratory areas or workshops.

In the case of any doubt regarding the application of the code, or in any circumstances affecting safe working not covered by the code, advice should be sought from UoE Project Manager / Coordinator.

Contractors shall afford access, and cooperate with all UoE staff. Designated staff are empowered to stop any works on health and safety grounds.

> Our Aim: to improve H&S performance year on year
>
> Our Objectives: zero fatalities, >95% "Safe Site" days*, below industry rate Accident Frequency Rate (AFR) and a competent and well managed contractor workforce.
> (*defined in "Reporting" below)

Scope

These guidelines apply to construction work as defined in the Construction (Design and Management) (CDM) Regulations which also clarifies the responsibilities of contractors and principal contractors in the planning and management of projects. All references to 'contractor' refer to the contractor as a company and employer. 'Contractor's operatives' refer to the individuals working (directly or sub-contracting) for a contractor.

Legislation / Standards Applicable

The CDM Regulations defines a range of other legislative health and safety requirements that apply to contractors as employers, and a number of other standards that have been developed and / or adopted by the construction industry. If necessary, reference may be made to relevant legislation / standards in contract documents. However, it is not the duty of UoE, nor the purpose of such documents to provide an exhaustive list or duplicate the content of statutes and standards.

Periodically, UoE will establish minimum standards to specify how contractors should meet (or exceed) a specific requirement of legislation or other standard while working for UoE. This document, for example, contains a number of minimum standards. Other minimum standards are contained in contract / tender documents and may form part of a specification. UoE is continually striving for improvement and understands that contractors are constantly facing new challenges within an ever-changing, competitive industry, often leading to original solutions. When contractors identify 'smarter' and safer ways of working, UoE will welcome safe innovation as well as feedback about our own performance.

Starting Work

A University campus is a busy environment and some areas are occupied and / or accessible 24 hours a day. Construction work is frequently conducted adjacent to and within 'live areas'. Consequently, public protection is typically considered to be the key safety issue on projects.

A site should generally be set up and protected as if it were a town centre location. Appropriate standards of fencing and other site protection are needed. Be aware that people may intentionally defeat barriers and ignore warning signs: when the site is unsupervised, protect excavations, prevent unauthorised access onto scaffolding, ensure tools / equipment are secure, etc.

Complex, high risk or notifiable projects must have annotated site plans showing welfare facilities, access and (where necessary) evacuation routes, site boundaries, designated smoking areas, fire points, storage areas, waste location, hazardous locations, no-go zones, first aid point, etc.

Effective coordination with activities on UoE campuses, achieved through a cooperative approach led by the Project Manager/ Coordinator, is essential for a successful project. Contractors may also be required to attend coordination meetings with other contractors on site concurrently to discuss project interfaces and / or deliveries to campus.

Effective signage (using pictograms as well as words) is essential. Directional signage needs to be agreed with the Project Manager/ Coordinator.

Normal working hours for construction work are 08.00 (workforce arrival before is usually permitted but no deliveries or running engines of parked vehicles allowed) to 17.00 Monday to Friday. It is expected that contractors will conform to these working hours and any work carried out outside of these hours will only be by agreement with the Project Manager/ Coordinator.

UoE expects high standards of housekeeping to be observed to reduce risks and ensure the appearance of the site reflects the professionalism of all involved.

If noise, dust, service isolations or other nuisances cannot be avoided or controlled to prevent significant disruption (and risk) to campus activities, some operations will need to occur outside / around campus activities which cannot be reasonably relocated. Key dates such as exams, ceremonies, major events, etc need to be checked – refer to the Project Manager/ Coordinator for information.

During the tender stage and / or at pre-start meetings the Main / Principal Contractor will be notified of special events which might affect the planning of the project.

Principal / Main Contractors should ensure that operatives, and especially Site Managers / Foremen, have the aptitude to work in busy environments and deal politely with the public. No cat calls, innuendo or out of place remarks to staff or students from workers will be tolerated.

A Site Manager Induction from the UoE Project Manager/Coordinator will be required before starting work.

Contractors must carry out written Risk Assessments for the activities to be carried out and prepare a written Method Statement for the works. Risk Assessments must take into account that University property is likely to be occupied at all times by staff, students and visitors.

H&S Management

Contractors shall actively manage their own works, the safety of their employees, and the safety of others.

Reporting

Contractors shall provide, at least monthly, the following;

- 'Safe Site Days' are days without recorded accident, injury, illness or environmental incident. Report the number of days on site, number of 'safe days' and percentage 'safe days'. Near miss incidents will not affect Safe Site Days to encourage reporting of near misses.

- Accident (all) information and manhours and an Accident Frequency Rate (AFR).

- Services strikes – an incident report, and investigation of every service strike (see Appendix for report template). These represent a loss or potential loss of service to customers, or worse still a serious disruption to research or teaching, potential loss of current data, etc.

- Fire alarms - an incident report and investigation of every event associated with the works.

- Record of complaints, and reason given, a record of works ongoing at the time and action taken.

Access & Security

Contractors must be aware that they will be working in occupied premises with teaching and research work 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 hindrance and the following restrictions apply:-

- University examinations shall take precedence over any works;
- Access and works restrictions relating to graduation, open days and other events will be advised to the contractor;
- Contractors must not enter occupied areas or living accommodation such as student bedrooms without the express permission of ES or DW staff and the relevant Accommodation Manager;
- At least 72 hours' advanced notice of proposed works will be given to the Director of Building / Accommodation Manager via ES or DW, except where works are of an emergency type action;
- Contractors shall display at all times identification clearly indicating their name, trade (or profession) and company address, together with a contact telephone number. The preferred option is an encapsulated ID badge with photograph pinned to the employee's jacket or overalls;
- Portable radios and other sound equipment will not be permitted on site;
- Working areas shall be cleared of all equipment, materials and tools at the end of each working day;
- Operatives may be required to report to the Project Manager / Coordinator or their nominated representative on commencement and completion of their daily works;
- The University reserves the right to request the removal of any operative from site for unspecified reasons at the discretion of the Director of Estates or Director of Campus Services.

Standard of Site Protection / Barriers

Risk Assessments should help to determine the exact level of site protection that is required (although contract preliminaries may stipulate the requirements for a particular project).

The Health and Safety Executive (www.hse.gov.uk/construction/cdm/miscfaq.htm) gives the following, broad guidelines: "Painting work in an occupied office block may just be taped off with a warning sign. Pavement works in the street might have temporary barriers in place, but a larger construction site with greater hazards may require a hoarding or secure fencing."

All site protection should fully enclose the work area and be supplemented by warning signs. Barriers should be approximately 1m high and suitably stable.

A number of additional design features are required on metal mesh fence panels at a UoE Campus:

- Panels should be covered in plastic diamond green mesh if wind loading allows (bracing to fences may be necessary);
- Feet should be designed, positioned and / or conspicuously coloured to prevent trips
- Panels must be secured with two couplers;
- Gates or doors in the panels must be padlocked when the site is unsupervised;
- Site access must be secure at all times and manned gates will be necessary when in regular use;
- Infill panels or similar must be fitted to prevent snagging of clothing, etc;
- Opens ends of fencing should have a 'return' to increase stability and security.

Where the contractor is carrying out work on University premises such as the breaking or dressing of stone or concrete, welding, grinding of metals, etc., he is responsible for the installation and maintenance of such screens or enclosures as may be required to protect persons other than his employees. Works shall be planned to avoid such requirements i.e. by off site cutting under controlled conditions.

Welfare Facilities

All contractors must take reasonable steps to ensure that adequate welfare facilities are provided.
During project planning, the Project Manager / Coordinator will assess welfare provision, and may approve that the contractor be given use of campus facilities. 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 in clean clothes and boots, having removed all PPE.

When evaluating the welfare requirements of the project, the Principal / Main Contractor may determine that the campus facilities are not suitable. In this case, the Principal / Main Contractor should inform the Project Manager/ Coordinator of the welfare facilities that are required. This can be done through tender clarifications and tender returns.

First Aid

Main / Principal Contractors should make their own arrangements for first aid, in compliance with the Health and Safety (First Aid Regulations) 1981. In an emergency (e.g. if the contractor's own first aider is injured), contractors may contact UoE first aiders for assistance (details are displayed on posters in all buildings), or request Estate Patrol assistance.

Where specialist first aid instruction or training is required, e.g. dealing with the effects of suspension trauma, the Main / Principal Contractor should ensure that either they or appropriate sub-contractors have received the instruction or training.

Main / Principal Contractors are asked to provide first aid assistance for UoE staff or others who are injured while visiting their sites.

Contractor's Keys

Contractor's keys can be issued where required – this will be within normal working hours. Any out of hours working must be planned for in advance. The arrangements for issuing these keys will be confirmed at pre-start meetings.

If these keys are lost, locks need to be changed and new keys issued. Consequently, the contractor may be charged to cover the cost of resulting works.

During the works all new doors need to be numbered and keys to doors (when locked) made available to Estate Patrol – even if the room is not fully commissioned [Note – the site must always be secure].

Contractors shall review with the Project Manager/ Coordinator their site perimeter, points of access, and how rooms in which work is taking place can be accessed in an emergency during the project and at completion e.g. Master keys and hand-over of keys. An emergency in existing buildings might originate either in the room in which work is taking place or rooms above, below or adjacent but require responder access to where the works are taking place.

Young People at Work

UoE 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).

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

CRB Checks

UoE may require contractors to have CRB checks where it is foreseeable that their work could give them unsupervised contact with children. Where deemed necessary, the requirement for CRB checks will be included in tender documents.

CSCS Cards

All UoE campuses are CSCS card sites. All operatives working on campus will be required to have a suitable CSCS card or a card affiliated to the scheme. There are two specific requirements:

i) Site managers must hold a gold (supervisors) card;

ii) All scaffolders working at UoE must be from NASC Registered companies and hold an appropriate CISRS card.

Where operatives have passed the CITB health and safety test and are waiting for a CSCS card, proof that the test was passed will be required. In exceptional cases, operatives will be permitted on site without a CSCS card; this includes emergency situations or ancillary occupations (e.g. drivers and cleaners) performing non-construction work subject to a Risk Assessment.

The acceptance of a CSCS card does not indicate that UoE deems an operative competent to perform work allocated to them by a contractor. This is the contractor's responsibility. Rather, the process assures UoE that operatives have sufficient safety awareness and general site information to ensure they are unlikely to pose a risk to staff, students, visitors, property or operations while on site.

Obtaining / Exchanging Information about Site Risks

All contractors are strongly recommended to visit the site while preparing tender submissions to understand the risks and issues involved in the project. This will assist your tender submission as some site-specific documentation will typically be requested at tender stage.

Relevant pre-construction information will be provided for all projects and issued direct by UoE or included in the tender pack.
Once appointed the Main / Principal Contractor will be asked to attend one, or more, site visits with the Project Manager/ Coordinator to review site risks. On low risk projects of low complexity, this may be combined with a pre-start meeting.

While UoE takes reasonable steps to ensure the accuracy and completeness of pre-construction information, it is not always possible to guarantee that records are completely accurate and contractors should take reasonable steps to verify this information during the course of the project. Where relevant information is missing, and could not be reasonably obtained before work commenced, provisions will be made for necessary checks, inspections or tests to be made after work has started (possibly by the main / principal contractor where that is appropriate).

Main / Principal Contractors must ensure that all operatives, including sub-contractors' operatives (and their sub-contractors), are aware of this Code and general information about site risks.

Main / Principal Contractors must ensure that relevant items from this Code are incorporated into their own site rules or induction arrangements: there may be a number of 'unique' requirements that do not feature in your own, standard rules.

Special Hazards

Where contractor's operations are expected to create special hazards, e.g. in the application of heat, demolition work or the use of dangerous articles or substances, the attention of the department concerned and UoE must be specifically drawn to the hazards, so that adequate precautions can be taken.

Contractor's employees may be at risk when working in certain areas, in which case hazards will be detailed on a permit to work issued by a UoE authorised person.

It is the contractor's responsibility to acquaint his employees with these hazards.

Risk Assessments & Method Statements

UoE expects:

- Risk Assessments and Method Statements will be prepared by a competent person within a competent company.

- Operatives to have easy and rapid access to relevant safety documentation, notably Risk Assessments and Method Statements. It is not acceptable to hold such important documentation off-site. The Permit to Work arrangements will prevent operatives working on site if they lack these documents.

- Risk Assessments and Method Statements will be site specific (or generic documents that are reviewed, suitably amended and signed / dated by a site supervisor or other manager) and must be signed as read and understood by all employees engaged in the task.

- The format and level of detail of any Risk Assessment and Method Statement will be suitable for the task. UoE will not impose a specific format upon contractors

Contract preliminaries may request that tender returns include a small number of site specific Risk Assessments and Method Statements for high risk or key activities. These should be used by contractors to assist with planning and allocation of resources.

Project Managers will sometimes review Risk Assessments and Method Statements (for example when issuing a Permit to Work or during the tender process (mentioned above). The purpose of this review is to ensure that:

- The project is effectively coordinated with campus activities;
- Necessary pre-construction information is supplied, where it is available;
- Risks to staff, students, visitors, buildings and operations are being effectively managed;
- Compliance with this Code of Safe Practice.

Comment on the technical content of the contractors work may also arise, but responsibility for a safe method remains with the contractor.

Behaviour / Presentation by Operatives

Campus rules for contractors require operatives to behave in a respectful manner towards staff and students. Standards of dress within sites and while on campus are no bare arms, chests or legs.

Inappropriate dress or behaviour (e.g. lewd) towards staff, students or visitors will lead to dismissal of the operative from site at UoE request.

There are a number of licensed premises on site. UoE does not permit contractor's operatives to drink alcohol on site, even if they have finished work for the day.

Asbestos

The University building stock may contain Asbestos Containing Materials (ACMs). Contractors shall ensure that all of their employees and staff under their control working on UoE campuses reference the relevant section of the Asbestos Register and sign to

acknowledge that they have understood its contents. This must be done before any surveying or work commences.

Contractors shall demonstrate that all employees and staff under their control working on UoE campuses have received asbestos awareness training.

No work involving the inspection, handling or disturbance of ACMs shall be undertaken without authorisation from a UoE authorised person (asbestos) and a permit obtained from UoE. UoE shall be advised of any work that may result in the risk of the disturbance of ACMs prior to the commencement of the works. This applies to all areas of work including within a designated contractors site area.

All cases of accidental disturbance and damage of ACMs must be reported to a UoE authorised person (asbestos) immediately.

All contractors will have attended annual asbestos awareness training or a refresher event run by UKATA accredited organisation.

Contractors who are not performing construction work (e.g. delivery drivers, cleaners engaged at the end of a project, PAT testing company working in office environments) will be exempt from the requirement for asbestos training. Dispensation for example for concrete gangs, steelfixers, carpet fitters and cleaners may be obtained from a UoE authorised person (asbestos).

Asbestos consultants will advise on whether a job is notifiable under the Control of Asbestos Regulations 2012. At the discretion of the Project Manager/ Coordinator they may also supervise complex, non-notifiable works.

Only licensed contractors are allowed to work on asbestos materials at UoE (any variation under CAR 2012 must be agreed in writing by the Asbestos Manager), and every such work activity shall be subject to a UoE Asbestos Permit. Strict adherence to overall colour coding and use must apply at all times – Red-live work area, blue- contaminated internally or non-notfiable works, white – preparation.

Competency Check of Main / Principal Contractor

All contractors seeking a place on framework agreements or other approved lists have been required to demonstrate their competency.
Main / Principal Contractors will be asked to provide information on an annual basis regarding their safety management and safety performance. The purpose is to ensure the ongoing competency of our contractors.

Contribution to Progress Meetings

The arrangements for managing the project safety need to be demonstrated as adequate. Therefore, contractor's safety performance is a standing item on the agenda of progress meetings. This will address matters such as:

- A review of accidents / incidents on site, and the findings from investigations of such;
- Report on investigations into service strikes or fire alarm initiation;
- A review of performance notices issued (see below);
- Overview of key changes to the Construction Phase Plan (if project is notifiable);
- A review of new sub-contractors starting on site;
- The findings of safety inspections conducted by the main / principal contractor;
- Confirming information is being collected for the health and safety file;

- On notifiable projects, progress reports by Main / Principal Contractor should be written.

Site Inspections

UoE may ask to inspect a work site at any time and carry out Spot Safety Checks, although will generally seek to visit the site at a mutually agreeable time. Main / Principal Contractors should ensure that all areas are made reasonably safe for entry by visitors but if this is not reasonably practicable, entry into hazardous areas should be prohibited. Entry should be refused to any visitor if they are not wearing appropriate personal protective equipment.

Competency of Subcontractors and Operatives

Principal / Main Contractors are required to establish the competency of sub-contractors.
Site managers should check operatives training records. It is also the responsibility of the main/principal contractor to ensure that their subcontractors are competent.

Fire Safety Arrangements

UoE expects contractors to comply with the Fire Protection Association's 'Joint Code' (entitled 'Fire Prevention on Construction Sites').

The Joint Code states that principal contractors on projects with an original contract value of £2.5m or above should appoint a competent person to assess fire risks and develop / update a Site Fire Safety Plan in accordance with the Joint Code. On smaller projects, the Joint Code should be applied as 'best practice'.

The Project Manager/ Coordinator will issue significant fire risk information relevant to the building / area as pre-construction information. The Main / Principal Contractor should assess this when planning their work, and coordinate their Fire Plan with that of the building / area and advise UoE of any effects of the works on the existing plan.

On notifiable projects, a Fire Risk Assessment and Fire / Emergency Procedures should form part of the Construction Phase Plan. Note that a suitably annotated site plan can convey fire safety information.

Fire risk will normally be considered as a potential hazard on relevant, general Risk Assessments. UoE expect contractors to have a specific Fire Safety Plan showing escape routes and assembly points. No formal assessments are required unless the general Risk Assessments indicate that they are needed. Contractors should familiarise themselves with the fire evacuation procedures for the building / area where they are working.

Where Risk Assessments or a Fire Safety Plan require contractors to have access to fire fighting equipment, they should supply their own (do not rely upon using UoE equipment).

LPG cylinders should not be stored inside UoE buildings. Suitable, secure external containers should be provided by the main / principal contractor in compliance with the UKLPG Association code of practice "Storage of Full and Empty LPG Cylinders and Cartridges" (current edition: See www.uklpg.org) and the 'joint code'.

Smoking, the use of flame lights or the application of heat as in welding or burning is prohibited in many areas of UoE campuses. Contractors and their employees must seek prior permission for these activities from UoE and a permit obtained.

Contractors are responsible for the provision of suitable and sufficient fire fighting equipment appropriate to the work involved. Contractors and their employees should on arrival at the work site, check for the following safety matters:

- The nearest means of escape in case of fire;
- The location, type and method of operation of the nearest fire-fighting appliance;
- The location and method of operation of the nearest fire alarm.

Contractors **MUST** obey emergency procedures for the evacuation of University buildings when called upon to do so.

The University's emergency instructions are as follows:

- If you spot a fire, alert those around you and break the glass of a manual call point and/or active your site alarm;
- If you hear the continuous alarm:-
  - Stop what you are doing;
  - Make your work area safe (to prevent trip hazards/obstructions, etc.) and ensure fire doors are closed;
  - Follow fire exit signs to leave by the nearest exit;
  - Go to a safe place away from the building.
- If you are outside a building being evacuated then you should stop your work and move to a safe place away from the building;
- If you suspect your work (dust, heat, smoke, etc.) has caused the alarm activation or you have accidentally struck a call point or detector you must evacuate but immediately give the details to Estate Patrol on 01392 723999;
- Await instruction to re-enter the building.

Major disruption to main access routes is subject to the UoE approval, partly due to the risk of blocking Fire Escape routes. If a route needs to be closed, the Project Manager/ Coordinator must obtain permission from the Fire Officer. If closure is not permitted while the building is in operation, out-of-hours work may be necessary.

If any works breach a fire compartment (e.g. penetrates a wall or floor), the main / principal contractor must ensure they make good with fire resistant material / fire stopping at the earliest opportunity (fire stop foam materials are not permitted). Materials must be tested under BS 476 (plus EN1366 in the case of service penetration protection) to provide a minimum of one hour resistance.

Disruption to fire detection equipment or systems must be planned in advance and agreed with the UoE project Manager – a record of all such works must be maintained and provided to UoE.
This shall include temporary covering of detectors and/ or switching off fire alarm systems or parts of systems.

The contractor shall consider his work activities and protect against false alarms likely to arise from dust disturbance etc.

Ladders, Stilts & Trestles

UoE recognises that for some activities (light, short duration work) ladders / stepladders can be a safe and practical working platform. However, other forms of access should be considered first and Risk Assessments should decide if ladders / step ladders are an appropriate option. Trestles must not be used. UoE will not accept ladders as a means of access onto roofs: alternative provision (e.g. scaffolding) must be used.

Stilts have also not been banned by UoE but are seen as a 'last resort' and may only be used in an area cleared and segregated ready for such use and solely occupied by the operatives

using them. Contractors should refer to Health and Safety Executive and industry guidance, which includes the need to ensure trip hazards are removed in the work area, to provide seats to allow operatives to sit down and put on / take off the stilts and to raise the height of edge protection where required.

Scaffolding

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

The erection / striking of scaffolding is deemed by UoE to pose a higher level of risk to members of the public (due to hazards such as carrying poles along traffic routes, risk of falling objects / falls from height, etc.). Scaffolding is often a highly visible operation in which unacceptable practices are likely to be quickly detected.

Main / Principal Contractors must ensure the competency of scaffolding sub-contractors both in terms of erection and, where appropriate, design. All scaffolders working on UoE campuses must hold appropriate CISRS (Construction Industry Scaffolders Record Scheme) cards. More information can be found at www.cisrs.org.uk.

Scaffolding should be designed to protect members of the public in the vicinity of the scaffold. Fans over access routes, mesh along working areas and padding to exposed standards are examples of measures that should be considered (note that the additional wind loading etc. will need to be accounted for when designing the structure). Proposals for scaffold design should be discussed with the Project Manager/ Coordinator. Site plans must be used to assist with the planning of scaffolding operations.

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

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 TG 20:08. Any scaffold that is not described as a basic scaffold under TG20 must be designed. All scaffold designs must be 'Green Light' approved shown to the contract administrator as part of the approval to work process: without this, the site manager may not commence erection.

Management of Hoists
Hoist suppliers / installers should preferably be directly appointed by Main / Principal Contractor rather than as scaffold sub-contractors. It is the responsibility of the Main / Principal 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).

Scaffold Inspections
Scaffold inspections are to be arranged by the main / principal contractor. The inspector must be competent as defined in the HSE's Scaffold Checklist.

All scaffolds should have a 'scafftag' (or similar) to enable a rapid check of inspection history. However written inspection records must also be held on site. Partially completed scaffolds must have prominent warning signs prohibiting use.

Management of Scaffold Handover
UoE expects site managers to review the scaffold with the scaffolder 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 TG4:04). UoE prefers ties to be tagged to prevent tampering.

Safe Method of Work
UoE will use NASC SG4:05 ('Preventing Falls in Scaffolding and Falsework') if reviewing scaffold erection / dismantling techniques. We expect scaffolders to comply with Appendix A of SG4. Scaffolders must also provide a rescue plan as part of Scaffolding Method Statements.

UoE will not stipulate a specific method for off-loading / loading scaffold wagons: Scaffolders must provide an adequate Risk Assessment and Method Statement, complying with NASC SG30:09 for safe offloading and public protection to the site manager for approval.

Persons erecting system scaffolds need specific training in that system scaffold in addition to holding appropriate CISRS cards. This applies to system stair towers.

Scaffolds on Roofs
Do not place scaffolds on roofs until you have received structural information confirming the load bearing capacity of the roof. Scaffold design (weights, location of standards, etc.) must be coordinated with the structural design. It is the responsibility of the site manager to ensure these designs are coordinated but will be assisted by the Project Manager/ Coordinator and lead designer.

Use of Stair Towers or Ladders
Wherever possible, scaffold access should be by stair tower rather than ladder. When pricing for scaffolds, provide separate costs 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). Remove or use locking cover plates to ladders at the end of the day or at times when not in regular use, or lock-off access to stair or ladder towers.

Mobile Towers
Persons erecting mobile tower scaffolds must hold proof of valid training (e.g. suitable PASMA training). Mobile towers used at UoE must have toe boards. Mobile towers are to be inspected in accordance with HSE guidance sheet CIS 10. 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.

Work Above Ground

When work by the contractor involves the erection of any scaffold, support, shoring or similar structure, he is responsible for the incorporation, in addition to any of the safety of the above, of features such as 'fans', walkways, covers, guardrails, warning lights, etc, as may be necessary for safety. Steps must be taken daily to ensure safety by the removal of ladders or other means of access when work ceases each day to prevent unauthorised access. Over-boarding of ladders is acceptable if securely clipped or a locked cover plate is fitted (ropes and cable ties are not deemed to be 'secure'). Activities must comply with the Working at Height Regulations.

Work Below Ground

Ground on UoE campuses may not be broken without the express permission of UoE – a Permit applies to excavation works. The work site must be made and kept safe by means of barriers, warning notices, lights, etc at all times. When work is complete, the site must be made good and any markers, protective covers and warning notices restored.

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 should be borne in mind and excavations boarded over when work is not actually proceeding. In particular, open manholes should be protected at all times.

Works near underground services must comply with the requirements of HSG 47.

A separate permit is required where temporary works (incl. demolition) which might affect an existing building.

Entry into Confined Spaces - General

Contractors' employees may not enter any tank, pit, chamber, pipe, flue or similar confined space where there may be dangerous fumes or lack of oxygen, without the express permission (and permit) from UoE. If permission has been given, work in such places shall be carried out using the methods and taking the precautions outlined in "Construction Site Safety" GE700 by CITB.

Entry into Confined Spaces - Ceiling Voids

Due to the range of potential hazards that can exist in ceiling voids, a safe system of work is required for entry into these spaces and a permit obtained from UoE. A copy is to be made available to UoE in advance and operatives entering ceiling voids must adhere to it. Main / Principal Contractors still require Risk Assessments to cover the means of access and working at height and any risks associated to the operation they are performing in the void.

Nuisance - Vibration, Dust, Noise & Fume

Environmental nuisances, such as those outlined in section 79 of the EPA or the Noise and Statutory Nuisance Act must be adequately managed. For example, odours, dust, smoke, and noise should be minimised. Reference should be made to PPG6 for guidance.

Vibration, noise, dust and fume should be minimised and controlled to prevent risk to operatives and nuisance / risks to staff, students and visitors.

Tender documents will make the Main / Principal Contractors aware of UoE activities and events occurring in the vicinity of the project and may impose certain restrictions, such as limiting the hours when noisy operations can occur. Such stipulations will also be discussed in pre-start / progress meetings.

The Main / Principal Contractor should ensure that the programming or methods of working do not infringe these restrictions. If in doubt about whether an operation would constitute a nuisance, the Project Manager/ Coordinator should be contacted and may request that 'trial' operations are run.

Wherever possible, main / principal contractors should create a dust / fume-proof seal between the work area and surrounding rooms and corridors if nuisance or hazardous dust / fumes, etc. are likely to be generated. Adequate ventilation must still be provided to those at work. Refer to PPG6 , BS5228 and HSE Construction Occupational Health case study COH15 which can be found at http://www.hse.gov.uk/construction/resources/casestudies.htm.

Refer also to Fire Safety Arrangements above if any detectors need to be protected from dust or fume.

Traffic Management & Road Safety

Segregation of vehicles and pedestrians both external to and within the site is 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. Construction plant, HGV, etc. must be fitted with audible and visual reversing alarms.

Site plans can communicate important traffic management information.

Unavoidable vehicular operations that pose a risk to the public (e.g. crossing footpaths) should be assessed and controlled through the use of banksmen, out of hours work, etc.

Contractor's vehicles must not exceed 10 miles per hour while driving through UoE campuses. Note that this may be less than the general speed limits on site and is a reflection of the greater risk posed by drivers who are not familiar with traffic routes / site risks, etc. (Refer to the Construction Risk Profile – Appendix A).

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

- Bays for drivers with disabilities;
- Double yellow lines;
- Yellow hatched areas;
- Delivery areas;
- Locations which block access routes.

Where it is deemed absolutely necessary to park in such areas, the Contractor will seek permission from the Project Manager/ Coordinator. Even when permission is granted, vehicles should only be left in such areas for the minimum amount of time necessary.

Contractors will be made aware of any permissible parking places through pre-construction information contained in tender documents and / or pre-start meetings.

On arrival, delivery drivers should contact the Main / Principal Contractor's site manager / foreman so that arrangements can be made to meet them. Materials should not be left unattended on the UoE campuses. Delivery schedules should be discussed with the Project Manager/ Coordinator if deliveries could disrupt adjacent projects or the UoE road network.

Contractors will incur full costs for releasing their own vehicles that are clamped or towed away due to improper parking on site. UoE will not be liable for any costs incurred.

UoE will accept no liability for any damage to or theft of / from contractor's vehicles.

Where significant amounts of mud are likely to be carried on to the road network, the contract must allow for wheel washing facilities on site and road cleaning operations.

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

Accidents & Incidents

The Project Manager/ Coordinator should be notified immediately of a serious incident (e.g. RIDDOR reportable). Other incidents affecting only the contractors own personnel and equipment should be reported by submitting a copy of the contractor's accident report form. If the incident harms or affects UoE staff, students, visitors or property then the contractor will be helped to complete a UoE incident report form.

UoE may undertake or participate in accident investigations where they deem it necessary.

Visits by the Health & Safety Executive, etc

Please notify Project Manager/ Coordinator as soon as practicable of any visit by Officers of the HSE or other enforcement body.

The contract administrator should receive a copy of any correspondence exchanged between the enforcement body and the main / principal contractor.

Permit to Work Process

In the case of especially hazardous work, or where contractor's operations may need to be especially coordinated with those of the University to ensure safety, the work may be governed by means of a formal permit system. The relevance of such a system to the work envisaged will be discussed wherever possible during the planning stage and the necessity for such a system to be adopted considered before work commences.

Permits are required for works associated with the following:-

- Asbestos surveys (unless via our framework consultant) and works, removals and disturbance eg drilling
- Electrical (incl. batteries) - Refer to Low Voltage Electrical Safety rules
- Permit to Dig
- Lifting Operations – affecting any existing buildings / public access area
- Temporary Works – affecting any existing buildings
- Confined Space Entry
- Hot Works
- Roof Access
- Noisy / Percussive Work (in or adjacent to occupied premises)
- Gas Plant and Equipment
- Pressure Vessels and systems
- CCTV works (any works likely to disrupt CCTV coverage including power outages)

Service Isolations

Due to the potential disruption and costs arising from unplanned service disruptions, Main / Principal Contractors must not effect service isolations without the permission of UoE. Other than in emergencies, permission will only be given once UoE is satisfied that it has identified what areas will be affected by an interruption to services, ensured that relevant stakeholders have been consulted and have developed suitable plans to manage the impact of disruption.

This includes CCTV systems or power supplies to such systems.

See also Fire Safety Arrangements above regarding disruption to fire detection or alarm systems.

Coordination / Cooperation with Other Contractors

The Main / Principal Contractor will be made aware of adjacent construction projects during the tender stage and / or through meetings.

Due to the scale of UoE campuses it is not always possible to know where or when smaller projects (especially minor maintenance jobs) are taking place. Consequently, it is foreseeable that operatives or sub-contractors will seek entry into work sites. Main / Principal Contractors should not allow other contractors access on to their site unless it has been requested by the Project Manager/ Coordinator and approved by the Main / Principal Contractor. The Main / Principal Contractor should ensure that all contractors coming on to their site have to go through an appropriate induction (Note – the contractor is responsible for H&S on his site so must control).

The Project Manager/ Coordinator(s) will make appropriate arrangements for site managers / foremen of adjacent sites to initially meet. Ongoing discussions between site managers / foremen need not involve the Project Manager/ Coordinator(s) unless there is disagreement which requires the Project Manager(s) to act as mediator. Attendance at short duration but regular coordination meetings might be required.

Lifting Plans for Crane Operations

UoE must see a written Lifting Plan for all crane operations (lifting plans are discussed in the ACoP to the Lifting Operations and Lifting Equipment Regulations 1998). As a crane lift is deemed by UoE to be a high risk operation, an annotated site plan should accompany the Lifting Plan. Within the Lift Plan a specific assessment of ground conditions is to be included, and must address underground chambers, cavities and services in the vicinity. This may require the digging of trial holes or test pits and assessment by a civil/structural engineer. Any requests for details to UoE must be received at least 2 weeks prior to submission of the plan.

The Lifting Plan is to be issued to UoE for comment at least 2 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).

A UoE Permit will be required for any crane that oversails a building or public accessed area. This shall be avoided where reasonably practicable. Areas or the roof and floor directly below the lift must be evacuated during the lift.

Signage

Safety signs must comply with the Safety Signs and Signals Regulations 1996 so 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').

Notification of Hazards & Defects

If an operative of a Main / Principal Contractor notices an uncontrolled hazard or defect, it is expected that the main / principal contractor will notify the Project Manager/Coordinator even if the hazard or defect is outside the scope of the contractors work or does not affect them directly.

Managing Instruction Given by Faculty Staff

Main / Principal Contractors should generally only accept variations / instructions from the Project Manager/ Coordiantor, their nominated deputy or their manager within the department. Any other persons attempting to issue variations / instructions (or queries over the validity of a variation / instruction) should be directed to the Project Manager.

Occasionally work will cause unforeseen disruption. A contractor can be instructed to halt work by a Dean or Head of Department. The person giving the instruction should be asked to provide a hand written note confirming their name and the reason for the instruction. The Main / Principal Contractor should contact the Project Manager/ Coordinator immediately.

Personal Protective Equipment (PPE)

The minimum PPE requirements for contractors working on site are high visibility jackets or vests to BS EN 471 Class 2 and protective footwear with steel insole and toe cap to BS EN ISO 20345. Main / principal contractors can impose higher or additional minimum standards as required by their Risk Assessments or policy (e.g. a compulsory glove policy). Suitable provision is to be made for storage and maintaining PPE.

Gas Plant & Equipment

All contractors undertaking gas works within buildings downstream of the main building incoming meter shall be GasSafe registered. All contractors undertaking gas works external to buildings and upstream of the main building incoming meter shall be Gas Industry Registration Scheme (GIRS) approved and undertake work in accordance with the University of Exeter's Gas Safety Case.

Individual operatives shall be competent to carry out gas work and hold valid certificates over the areas of gas work that they intend to work. The contractor shall provide a copy of the appropriate registration certificate and assessment certificates for operatives they intend to use. Operatives shall carry their registration card, which shall be available for inspection.

A permit is required for works on the gas network including pressure reduction installations (PRIs), meter installations and any mains or service alterations or laying including Routine Operations (ROs) or Non-routine Operations (NROs).

Use of Plant, Equipment & Lifts

Main / Principal Contractors should supply and utilise their own equipment and should not use UoE plant and equipment in the conduct of their duties.

University lifts may be used by operatives travelling to and from the work area. Construction materials should not be carried by lift unless authorised by the Project Manager/ Coordiantor who will ensure steps have been taken to prevent damage to or overloading of the lift car.

Lifts should not be used in the event of a fire.

Laboratories and Waste Traps

High hazard areas will be identified to contractors, and specific permits will be required to access / carry out works.

There are a number of waste traps (and drain runs) throughout the UoE campuses that may contain substances that could pose a risk of harm. These are typically (but not always) labelled. Where it is possible to obtain Material Safety Data Sheets for the substances, the Project Manager shall arrange for these to be made available to the contractor. A contractor should not disturb any waste trap or drain run from a waste trap until they have assessed the likely nature of any material or residues held within the trap and performed a suitable Risk Assessment to identify the required control measures.

Clearance certificates must be obtained from UoE before commencing works.

Plant Rooms

Plant rooms are not to be used for the storage of tools and equipment. Access into high voltage (HV) switchrooms is prohibited unless authorisation is given by UoE. Contractors must ensure that plant rooms are locked when unoccupied and when leaving.

Note – all plant rooms have a works restriction applied due to possible asbestos presence (excludes post 2000 buildings).

Services Generally

Contractors must not connect to or interfere with the compressed air, electrical, gas or other services of the University without the express permission of UoE.

UoE Low Voltage (LV) electrical safety rules (including Permit) as included as Appendix C should be referred to.

Tools & Equipment

All plant, tools, tackle and equipment used by contractors on University premises must be suitable for the work undertaken, must comply with all the relevant legal standards and must be maintained in accordance with appropriate safety standards. Operatives must be trained in the use of such equipment,

Contractors may not use the University plant, tools, tackle or equipment without the express permission of UoE and then only on clear understanding that they are responsible for ensuring its suitability and safety for its intended use, and safe return.

Cartridge operated fixing tools may not be used on University premises without the prior permission of ES / DW. If this has been given, such tools may be used only in compliance with the standards set out in "Construction Site Safety" by CITB.

Excavations

UoE campuses have an extensive network of privately owned underground services consisting of water, gas, HV / LV cables, data / telecoms, fire alarm cables and drainage. Information should be requested from Estate Services via the Project Manager/ Coordinator at least 14 days in advance of an excavation starting. Services are indicated on University drawings but these are not guaranteed to be accurate, and contractors shall trace and mark services before excavation commences.

HV cables - an extensive network covers the campuses managed by UoE. Advice should be sought from a UoE AP Electrical.

Gas – similarly there is an extensive network of gas mains across the campuses managed by UoE. Advice should be sought from ES appointed staff.

Water and drainage – seek additional advice.

Fibre Optic / Data – a network of cable ducts covers the campuses and advice should be sought in relation to such services.

There are also some services on campus owned by utility companies, who may be contacted as follows:

Gas: Wales & West Utilities should be contacted on their 'dial before you dig' line: 02920 278 912. If working in the vicinity of high pressure lines, Wales & West Utilities will send a Plant Protection Team to survey the site and advise on safe working practices.

Electricity: Western Power Distribution can be contacted for information on their 'South West Mapping Centre' line: 02920 535 379.

Water, drains, data-cables: Information can be provided by UoE for these installations within the curtilage of the campuses. Data cables are generally contained within ducts.

Excavations are performed under the Permit to Work system. Contract preliminaries or site instructions may prohibit excavations at certain times to prevent potential disruption to critical operations. All excavations where services have been installed, repaired, etc. must be witnessed by a UoE Project Manager/ Coordinator or representative (Engineer or Clerk of Works) before backfilling.

Storage of Materials

Storage requirements and locations will be determined during the tender and pre-start stages. Due to the confined nature of some work areas, main / principal contractors may need to keep minimal materials on site, making use of off-site storage or 'just in time' delivery solutions.

UoE does not have storage facilities available for use by contractors, except where explicitly stated.

All materials should be stored in accordance with legal requirements and to prevent pollution.

The skip must be removed at the end of every day.

Storage, Transport & Disposal of Waste

All waste should be stored, transported and disposed of in line with the Duty of Care requirements (Environmental Protection Act 1990), Environmental permitting Requirements and other relevant waste legislation. Contractors must ensure that waste does not escape from their control and is passed only to an authorised person accompanied by a full written description. Consideration must be given to how noise and dust emissions can be minimised waste must not be burnt on site. Contractors MUST NOT dispose of waste in bins, skips or other arrangements contracted by the University.

All wastes must be stored in designated areas which are isolated from surface drains. Where possible, separate skips should be provided so that wastes can be segregated for recycling or to prevent cross contamination.

Skips should be:

- covered (and ideally locked) to prevent dust and litter being blown out and rainwater accumulation
- regularly inspected
- replaced when full
- impossible to move (through weight or anchoring) from the allocated area without mechanical assistance. Where this is not reasonably practicable, the skip should be located within a secure compound

- Located a minimum of 10m from a building. If skips / bins have to be stored closer than 10m (for reasons of practicality and safety) they should never be closer than 6m and must:
  - Never be overfilled;
  - The area around the skip should be free of waste, debris and dry vegetation;
  - Be metallic with a close-fitting lockable lid;
  - The lid should be kept locked when the site is unsupervised;
  - Never be filled with flammable substances
  - Have adequate numbers of appropriate extinguishers for the quantity and nature of waste in the skip sited in an accessible location in the vicinity of the skip;
  - Be emptied as soon as practical and always before leaving the site unsupervised for more than 24 hours (e.g. weekends);
  - Be subject to daily review by site management (site fire checklists, site diaries or a similar mechanism should be used to record these reviews)
  - Combustible materials (e.g. wood skirting, etc.) should, wherever reasonably practicable, not be discarded in the skip. Note that good waste management typically requires segregation of waste at source

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. Hazardous and non-hazardous waste must not be mixed.

Copies of permits, exemptions, waste transfer notes or consignment notes may be requested at any time.

Waste generated through construction MUST NOT be applied to University land, used to build pathways or any other usage without prior consent from the University and confirmation that appropriate exemptions are in place.

Litter - Contractors are to ensure that they, and their staff, do not drop litter. Under section 87 of the Environmental Protection Act 1990 Act it is an offence to throw down, drop or otherwise deposit, and then leave, litter. Litter includes cigarette ends and discarded chewing gum.

Site Drainage

It is the responsibility of the contractor to ensure they are aware of the different types of drain within the boundaries of the works. There are two types on campus:

1. Surface water drains – these capture rainwater off buildings, paths, roads and car parks and generally feed into controlled water. They are for rain water only and under **NO CIRCUMSTANCES** must any other liquid (or solid for that matter) be disposed of down them. This includes oils, chemicals, food products, soapy water or water from the draining or flushing out of any systems. Many of the University's surface water drains lead directly to the waterways on campus which ultimately lead to the River Exe.

2. Foul or effluent drains - these capture waste from toilets and sinks. Any activities requiring the discharge of water to the drainage system should be identified prior to the commencement of any work, and discussed with the University Project Manager.

Pollution Prevention and Emergency Response

Contractors should undertake all precautions necessary to prevent pollution.

Guidance – contractors should be aware of the requirements detailed in "PPG6: Working at Construction and Demolition Sites" and "PPG5: Works and maintenance in or near water"

Security - Vandalism and theft are common causes of pollution. Sites should be adequately protected by secure fences and locked access where possible. All valves and trigger guns should be protected from vandalism and unauthorised interference and should be turned off and securely locked when not in use. Any tanks or drums should be stored in a secure container or compound, which should be kept locked when not in use. Bowsers should be stored within site security compounds when not in use.

Deliveries - Special care should be taken during deliveries, especially when fuels and hazardous materials are being handled. Ensure that all deliveries are supervised by a responsible person, that storage tank levels are checked before delivery to prevent overfilling and that the product is delivered to the correct tank. Put in place a contingency plan and suitable materials to deal with any incident. Ensure that employees know what to do in the event of a spillage. If properly dealt with, a spillage need not result in pollution.

Silt – Water containing silt should never be pumped directly into a stream, pond or surface water drain. Silty water can arise from excavations, exposed ground, stockpiles, plant and wheel washing and site roads. Wheel washes and plant washing facilities should be securely constructed with no overflow and the effluent should be contained for proper treatment and disposal. All discharges from the site will require approval.

Concrete and cement - these substances are very alkaline and corrosive and can cause serious pollution in watercourses. It is essential to ensure that the use of wet concrete and cement in or close to any watercourse is carefully controlled.

Refuelling - Where possible, refuel mobile plant in a designated area, preferably on an impermeable surface and away from any drains or watercourses. A spill kit should be available. A work instruction should be prepared to manage this activity.

Plant & Wheel washing - To reduce the pollution risk make sure that: plant and wheel washing is carried out in a designated area of hard standing at least 10 metres from any watercourse or surface water drain, run-off is collected in a sump (recycle and reuse water where possible), settled solids are removed regularly, discharge of contained water goes to foul sewer (if possible) with prior permission from your local sewerage provider.

Storage - ensure fuel, oil and chemical storage on site is secure. Site the storage on an impervious base within a secondary containment system such as a bund. Oil storage containers (e.g. tanks, IBCs, drums and mobile bowsers) greater than 200 litres must comply with the Control of Pollution (Oil Storage) (England) Regulations.

Incident Response - contractors operating on construction sites on campus are required to have an Environmental Incident Response Plan which should work in conjunction with the University's Pollution Prevention and Emergency Response Plan.

Incident Reporting – The incident MUST be report to the Sustainability Manager on the Environment Incident Report Form EMSF003. In the case of a serious incident, the incident should be reported to the Environmental Agency or Southwest Water

Control of Pollution

Contractors may not deposit any waste, chemical or any other substances whatever into drains on University premises, unless express permission has been given by ES / DW in writing. No burning on site is allowed. Control of dust from all works operations must be planned in advance.

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 watercourses and ponds.

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

Protecting grounds and wildlife

All trees, hedges, ponds, streams and other wildlife features should be protected from damage during construction works. Contractors **MUST NOT** drive on grass, dig near trees or cut or trim vegetation without prior consultation with the Grounds Team.

Health & Safety File

In order to ensure that critical safety information is collected for the Health and Safety File, and can be stored in a way that enables effective retrieval, UoE has prepared a procedure on the management of Health and Safety Files.

At the start of the project this will be explained to the Main / Principal Contractor what information is required for the file and the required format (generally one hard copy and one electronic copy). Health and Safety Files must be assembled progressively throughout a project.

Health and Safety Files should eventually be provided to the Project Manager/ Coordinator. However, they must first be reviewed to ensure the format and contents will be acceptable to UoE and then pass the file (in hard and electronic formats) to the Project Manager/ Coordinator.

It is the Main / Principal Contractors responsibility to ensure processes are in place to collect necessary information from sub-contractors.

Appendix A

CONSTRUCTION RISK PROFILE

AIM – to highlight to construction teams (e.g. designers, Project Managers, contractors, sub-contractors and suppliers) the specific issues and risks associated from working on Streatham Campus.

DETAIL – the current information that is highlighted here is that felt pertinent to any contractor carrying out construction works on Streatham Campus. It is not intended to be a comprehensive list, and specific information on buildings, major functions, events, etc should be provided on a job by job basis.

Streatham Campus is used by 15,000+ students, other part time students and visitors and nearly 3000 staff. In all nearly 20,000 may be on campus.

There are regular open days for potential students where 1,500 more arrive on campus and major open days attracting up to 10,000 visitors in a day.

Events are held regularly in the Great Hall daytime and often in the evenings, with up to 1800 attending, including members of the public.

Co-located on campus is the Exeter Northcott Theatre which runs shows throughout the year often with daytime matinee performances. The pantomime season in the winter is a regular feature attracting large school audiences daytime usually arriving in a fleet of coaches. The capacity of the Theatre is 460.

The nature of the site is very hilly, with planted woodland valleys between building groups. Parts of the site are listed as a botanical garden, other parts as an arboretum and generally the care of the grounds is a high priority.

There are large numbers of students living on campus and also in the city nearby (within a 15 minute walk). Student parking is not allowed on campus. The overall result is pedestrian traffic to and from, and around site is very high. Cyclists are also numerous. The tidal flow onto campus occurs from 8.30-9.00 with a peak around 8.45-8.55. There are also large movements around lunchtime and again near the end of the day (5.00pm). Pedestrian traffic can be seen from 7.30 until very late evening.

Teaching occurs largely in 4 main centres each with capacity for approx. 1,000 and all are within 2-3 minutes walk of each other. Between lectures, at 10 minutes to and until 5 minutes past each hour, the flow of pedestrians is intense, occurring from 10am to 5pm daily.

At the top of the site is the Sports complex. This is in high demand and used from 7.00am until 10pm. Departures from here in the evenings and weekends after an event/match can suddenly increase traffic on site dramatically for a short period. Library facilities are available 24/7 and are regularly used into the early hours of the morning.

There is an Innovation Centre on campus in 2 blocks occupied by businesses operating in association with UoE. These also have visitors throughout the day, many unfamiliar with the campus.

Buildings on site have historic interest and Reed Hall (and its grounds) and the Harris Collection (the original development of the campus around the chapel) are the main focus. The roads and grounds leading to the chapel form part of this collection.

A lot of the buildings on site have an asbestos legacy with some particularly difficult installations. There are also confined spaces within buildings and the infrastructure on site.

There are tall tower blocks and other large 3-4 storey blocks on site, and there are still areas of unguarded roof. Within buildings there are laboratories and other areas of higher hazard notably Biosciences and Physics. Flues and vents on roofs from these are likely to be hazardous. Experimental work within schools in some cases may have been running for considerable periods.

Power interruptions can cause loss of work and a considerable insurance claim. Interruption to experimental work can lead to reputational damage as well as financial loss, which has a long term adverse impact on the University. Power interruptions can also lead to loss of IT systems, data and CCTV coverage – again, all of which can lead to insurance claims. Note that emergency lighting on battery backup only lasts for 3 hours.

Fire prevention and detection is vital to the University. Maintaining integrity of fire stopping / barriers is essential. False fire alarms have been a major disruption to teaching / research activities and have resulted in the threat of loss of fire cover from the Fire Authority.

Pedestrian safety is affected by access roads around campus which in parts are narrow. A regular bus service travels the campus and a number of delivery vehicles access site early morning in the main from 6.30-8.30. Bin wagons also have to travel the campus. A particular problem occurs near the theatre during large deliveries as the vehicles can partially block the road nearby. Many courier vehicles and taxis can be seen entering campus during the day. Theatre audiences can include multiple coaches of school children as noted above.

Disruption on the road system can result from poorly planned deliveries. Deliveries must be controlled and given proper directions by the contractor and his sub-contractors, the timing of deliveries should be so that peak times are avoided and having some one on hand to take delivery of loads when they arrive will help manage this impact.

Examinations are held in January, May/June and August and are centred on Great Hall, Sanctuary, Peter Chalk Centre and the Sports Hall, it is of utmost importance these exams can be held as planned without disturbance and any works in and around these buildings at this time must take this into account. Also exams can be dispersed in other buildings so there must be a check before work commences.

The Campus is a live environment where many people live, work, and conduct business, and must not be viewed as just another building site. If contractors plan work to be self contained and activities such as back filling excavations, reinstatement of paths and removal of barriers and signs upon completion of works viewed as a priority this will help reduce the visual and practical impact on the users of the Campus, hence impression of the University. Keeping roads and paths, and the internal areas of buildings clean is seen as a priority and all contractors should view this as a priority activity both during the working day and at close of play each day. This will help ensure we maintain our reputation.

Politeness, safety and respect for the Campus users is also a high priority and the University will not tolerate any transgressions in this respect. This could damage our reputation.

A number of protected species and sensitive habitats can be found on the campuses. Due care must be therefore be taken in any works on the grounds or in roof spaces. There are controlled waters on the Streatham Campus which lead directly to the River Exe therefore any works carried out within 10m of a watercourse must be carried out with extreme caution.

Appendix B

Permits to Work – School of Biosciences

For safety and insurance purposes, all service engineers and contract staff must obtain a permit to work before commencing work in any laboratory. They must also be warned of any hazards associated with the area. Equipment for repair should be clean and free from hazards before they commence work. These permits also ensure that operatives are covered by University insurance.

Persons responsible for issuing work permits are appointed for:

Hatherly Laboratories:
Washington Singer Labs:
Living Systems / Geoffrey Pope Buildings:
Biocatalysis Centre:

Contractors and engineers are required to comply with the School's Code of Safety Practice while on the School's premises, in particular the points highlighted below. A copy of the full COP is available on request.

General Safety and Good Laboratory Practice (GLP)

All staff, research workers, visiting workers and students are required to contribute to health and safety in the School of Biosciences by working in a manner that is clean, tidy and thoughtful at all times and by following GLP. Hazardous materials and procedures must be subject to an appropriate safety assessment.

- There must be no eating, drinking, smoking or application of cosmetics in laboratories.
- Laboratory coats must be worn and be fastened in laboratories. These must not be taken into rest areas and coffee rooms. Laboratory coats should be hung up separately from other clothing.
- Safety spectacles or visors must be worn when handling acids, alkalis, corrosive or other hazardous materials and in solution-chemistry laboratories.
- In the Geoffrey Pope Building, safety glasses must be worn in the teaching laboratory at all times by staff, students and visitors. The only exceptions being when using microscopes or if a *Risk Assessment* has been completed showing that they are not necessary.
- Suitable gloves should be worn when handling hazardous materials. Disposable gloves should be changed frequently to avoid contamination. Remove disposable gloves before handling other equipment and books and before leaving the laboratory. If this is not possible, one glove must always be removed to handle doorknobs etc to avoid contamination.
- Hands should be washed when leaving the laboratory, before meals etc.
- Do not work with flammable solvents near a naked flame, or place them in refrigerators or freezers unless these are spark-proofed.
- Mobile phones must be turned off particularly when working with flammable solvents.
- Vaccination against tetanus is strongly recommended (available from your GP).
- Persons ignoring these rules will be referred to the Head of School.

Appendix C

UNIVERSITY OF EXETER

LOW VOLTAGE

ELECTRICAL SAFETY RULES

4.11 APRIL 2016

Introduction

These rules are assembled to establish safe working practices for the protection of those whose employment involves work on low voltage (i.e. less than 500V) electrical systems and equipment on University of Exeter (UoE) sites and premises.

The rules govern work associated with UoE electrical systems and equipment, and apply to both UoE employees and those contractors and suppliers engaged by UoE, directly or via third parties, to work on its sites and premises.

All persons who are, or who may be, concerned with the installation, control, operation and / or maintenance of any electrical equipment shall comply with the UoE electrical safety rules, which observe the following statutory provisions:

- The Electricity at Work Regulations 1989
- The Electricity Supply Regulations 1988
- The Health and Safety at Work Act 1974 and subordinate legislation; and the
- The Management of Health and Safety at Work Regulations 1999

These persons must also comply with the requirements of BS7671 – Requirements for Electrical Installations.

Note: Any work undertaken may also be governed by University of Exeter Policies and safety rules other than those for electrical safety, such as those applying to general occupational health and safety matters and not least the requirement that work activities are subjected to risk assessment.

Those having specific responsibilities for electrical safety matters include the following:

Senior Electrical Engineer (SEE) - The post-holder with overall responsibility for electrical matters at the University of Exeter (based in Estate Service, Streatham Farm).

Authorised Person (AP) - A person who fulfils the requirements of a Competent Person is over 21 years of age, who is principally of an electrical discipline or who has significant electrical experience and who has had adequate training to work without danger and accepts responsibility for the safety of others working under his direction.

The SEE, his Electrical Engineers, the Electrical Trades Foreman and Charge Hand at the UoE are deemed to be Authorized Persons by reason of qualifications and experience.

Competent Person (CP) - A person who is essentially of an electrical discipline and has adequate technical knowledge and experience of the system or equipment to be worked on to avoid danger to himself or others for whom he may be responsible.

The Electricians employed by the University of Exeter Direct Labour Section or by external contractors are deemed to be competent persons by reason of training and experience.

General

Safe Working Procedures

In the event of a safe working procedure being required for work on a specific item of equipment it is the responsibility of the Senior Electrical Engineer (SEE) to ensure this is in place.

Failure of Supply

During failures of supply, all plant is to be regarded as being live until isolated.

Dangerous Occurrences or Accidents

All dangerous occurrences and accidents shall be immediately reported to line management, to the Health Safety & Environment Office and to the SEE.

Operational Restrictions

Operational restrictions identified from any source are to be registered with the SEE. These may include, but may not be limited to:

- Health & Safety Executive (HSE) safety alerts
- Manufacturer's product safety alerts
- Failures of electrical equipment during operation
- Third party reports or other safety alerts

Objection to Instructions

If a person has an objection on safety grounds to instructions received for work on, or the operation of, electrical plant, he shall make his objection known to his line manager. The manager shall consider the matter immediately, referring to the SEE if the matter cannot be otherwise resolved.

Unauthorised Electrical Equipment

All electrical equipment brought onto UoE sites or premises that are operated by being connected into the mains supply must be PAT tested and comply with the requirements of the Low Voltage Safety Rules. It is the responsibility of the PEE and line management to ensure that any electrical equipment found to be non-compliant is safely disabled, removed from site or made safe.

Signs and Screens

Responsibility for placing in position or moving any signs or screens required in connection with the issuing of written work authorisation documents rests with the Authorized Person (AP).

Work On Low Voltage Systems

General

For UoE installations Low Voltage refers to systems and equipment working at less than 500V. When written authorisation is required by the rules, it is the duty of the AP to ensure the following:

- All the necessary steps to ensure safety and to avoid danger are implemented;
- The CP in charge of the work, and any persons for whom he is responsible, are fully conversant with
  - ~ the nature and extent of the work to be done;
  - ~ the area in which it is safe to work;
  - ~ their own responsibilities for safety; and
  - ~ the safety precautions in force.

Permit to Work

A Permit to Work (PTW) is only to be issued by an AP. This is not normally required for work on LV equipment or systems except as noted in these rules. The exception to this is if the AP considers the complexity of a system to justify its issue.

Where the LV electrical system can be 'backfed' from another substation in the UoE distribution network, a permit to work issued by the PEE shall be obtained before proceeding.

Associated Permits

Other forms of permit or authorisation to work may be required, e.g. Permit to Enter Confined Spaces. This should be particularly observed when the re-commissioning of plant is proposed. All relevant permits must be cancelled prior to re-commissioning.

Competency

Line management is to ensure that any person carrying out work on LV equipment is competent.

Where equipment is deemed to require a PTW it is the responsibility of the AP to ensure the person is competent to receive a PTW and carry out the specified work.

Isolation and Earthing

No work of any description (including maintenance, repairs and cleaning) is to be carried out on any low voltage (LV) equipment unless it::

- is barriered from adjacent equipment where necessary to prevent danger;
- is made dead and is securely isolated from all points of supply to the equipment;
- where necessary is earthed.
- is locked at all points of isolation;
- has approved safety signs displayed;
- has been made safe by inhibiting the automatic sequence of any automatic fire suppression equipment;
- is released for work by the issue of a work permit at the discretion of the AP.

Where practicable a visible break is to be made in every supply circuit in order to isolate circuits.

Live Working

No work of any kind is to be carried out on LV equipment when the equipment is live if the purpose of the work can be achieved with the power isolated.

If it is not possible to complete the work without energising the equipment, this will only be permitted if an AP has issued a PTW which will identify all risks and all measures to be taken to minimise the potential danger.

Live Testing

Apart from Inspection and testing as defined in Part 7 of BS7671, live testing is permitted only in the following circumstances:

The use of approved equipment for the purpose of voltage detection on a live circuit, but only where it is a necessary part of the test involved. In such circumstances the test equipment used should comply with HSE Guidance Note GS38 – Electrical Test Equipment for use by Electricians, and adequate precautions are to be taken to avoid access to the equipment under test by persons not involved with the testing.

Any test or inspection procedure, other than voltage detection on a live circuit, which is necessary to be undertaken live. The test or procedure is to be specifically authorised by an AP. The AP authorizing such live testing must attend and remain present for the duration of the operation. In no circumstances may an AP authorise himself to do such tests.

The AP shall not authorise live testing or inspection procedures unless he is satisfied that:

- the requirements of Regulation 14 of the Electricity at Work Regulations are satisfied;
- it is unreasonable for the testing to be undertaken dead;
- the person who will undertake the work is competent and properly equipped to carry it out safely.

Where live testing or inspection procedures are carried out in a workshop, or on an electrician's bench, portable or fixed barriers must be used to exclude those not involved in the test together with the display of safety signs, stating live testing is in progress. In such circumstances the mains supply used for testing purposes must be protected by a maximum 30 mA residual current device (RCD).

Protective covers over live parts of equipment must be replaced as soon as the necessary test is completed. Equipment with exposed live parts must not be left unattended unless it is located in a locked room to which only the person in control of the test has access. In such circumstances warning signs must be displayed.

A PTW is required if LV equipment is to be energised to allow completion of the task before all "full-time" safety provisions are implemented.

A PTW is required if LV equipment is to be pressure tested at a value of applied voltage in excess of extra low voltage in the installed working location. This restriction does not apply to approved test instruments.

Re-commissioning

No LV equipment is to be re-commissioned and made live after the completion of work until the following apply:

- The equipment is visually checked to ensure that all removable covers have been replaced;
- All persons, gear and tools employed in the work area are withdrawn and accounted for;
- All earthing devices (where applicable), barriers and safety signs are removed;
- The correct testing procedures have been carried out;
- It is released for service by the cancellation of any PTW;

The automatic control of any fire suppression equipment such as Halogen gas is reinstated.

Precautions for Work on Electrical Equipment

Cables

Before commencing any work involving the cutting into any LV cable, the cable must be positively identified by AP and the necessary safety precautions implemented at each cable end. All cables that cannot be readily and positively identified must be spiked under the direct supervision of an AP.

An approved spiking gun must be used for this purpose by a person specifically trained in its use.

All other cables in the vicinity must be assumed to be live and marked with the approved safety signs.

Batteries

Where a cell is to be replaced in a bank of batteries this is effectively live work. This must be carried out under a PTW with suitable PPE, and not done as lone working. The ends of the battery bank must be isolated from all sources of supply before starting work.

Rotating Machines

Before any electrical work is carried out:

- The machine is to be stationary.
- The machine is to be securely isolated from all electrical and mechanical driving forces.
- Isolate, by the means provided any heater elements or other sub-circuits normally energised when the machine is stationary.
- Give particular attention to the isolation of the auxiliary circuits, controlling the automatic start sequence of the prime mover, of any standby generation equipment liable to be automatically set in motion.

Capacitors

Equipment which has an associated capacitor fitted is to be subject to special caution. After isolation of the equipment, wait for the period shown on the label attached to the equipment to allow the integral bleed resistors in the capacitor to dissipate any trapped charge. After the specified waiting time the earth connection can be applied to the equipment.

Where the capacitor is connected to the equipment via external fuses, a voltage check using an approved voltage indicator must be made on both sides of the fuse. Any trapped charge is to be dissipated by application of an approved discharge resistance of a suitable voltage rating, resistance and thermal capacity. Under no circumstances is the trapped charge on any capacitor to be discharged directly to earth.

Where no label is attached to the equipment, a minimum waiting period of 5 minutes applies. After this period the same precautions as for an externally fused capacitor are to be applied before applying the earth connection to the capacitor.

Control and Auxiliary Circuit Supplies

It shall not be assumed that the isolation of the main supply to any equipment also isolates the control and auxiliary circuit's supplies of that equipment. Before any work is carried out on any equipment the CP shall ensure the following:

- Where necessary to avoid danger, the control and auxiliary circuits of any automatic equipment are disconnected. All voltage transformers associated with the equipment are isolated, withdrawn and locked out where possible.

- The fuses are withdrawn or miniature circuit breaker (MCB) is open on the low voltage side of all voltage transformers to prevent any possibility of such transformers being energised from the low voltage side.
- Precautions shall be taken against inadvertent replacement of any fuses or re-closing of circuit breakers.

Prohibition

It is expressly forbidden to adopt any practice involving the making live or dead of any equipment that could cause electrical or mechanical danger by means of a signal, by telephonic or electronic means or by a prearranged understanding implemented after an agreed interval of time.

Errors or Deficiencies

During the course of work on any electrical equipment, errors or deficiencies identified are to be brought to the attention of line management without delay.

Record Drawings and Other Engineering Data

The responsible person is required to ensure that all record drawings and data necessary to ensure safety, both generally and under these safety rules, is available as and when it is required. Further, all such drawings and records are to be kept up to date.

Permit to Work Certificate

PERMIT TO WORK ON LV SYSTEMS

Part 1: Issue

Issued to:_____
I hereby declare that it is safe to work on the following low voltage electrical equipment which has been made dead, and isolated from all live conductors*.
* Live conductors have been earthed.

All other electrical equipment is dangerous to work on

The system is isolated at :	
The system is earthed at **	
Danger notices are posted at:	
Caution notices are posted at :	
Other precautions taken are :	
The following work shall be carried out:	

No other work shall be carried out

Other PTW in use are:	

** Delete if not applicable

Authorised person:

Signed_____ Time_____ Date _____

Part 2: Receipt

I hereby declare that I accept responsibility for carrying out the work on electrical equipment

as detailed on this permit to work and that no attempt will be made by me or persons under

my control to work on any other electrical equipment requiring a permit to work.

Signed _____ Status_____
Time _____ Date _____

Part 3: Clearance

I hereby declare that the work for which this permit was issued has been completed or safely suspended and that all persons in my charge have withdrawn and been warned that it is dangerous to work on the electrical equipment specified on this permit to work and that all gear and tools has been removed.

Signed _____ Status_____
Time _____ Date _____

Part 4: Cancellation

This permit to work is hereby cancelled. The original has been destroyed in the presence of the signatory to part 3.

Signed _____ Status_____
Time _____ Date _____

Appendix D – Construction Waste

The project team will consider means to minimise construction waste from the inception to the completion of the project, through the initial brief, design process, materials selection, construction techniques and operational methods.

Examples of specific requirements include:

• Inclusion within the Scope of Services for the appointment of designers, a requirement to comply with the WRAP 'Designing out waste: a design team guide for buildings'. This guide encourages designers to design out waste by signing up to the five key principles design teams can use during the design process to reduce waste, namely to:
• Design for reuse and recovery;
• Design for off site construction;
• Design for materials optimisation;
• Design for waste efficient procurement
• Design for deconstruction and flexibility.
• Production of whole life cycle costs for key structural and services elements of construction projects during the design process.

For new build construction projects, set targets for and measure waste reduction, using benchmark data for Education projects, collected by the BRE (Building Research Establishment).

The BRE is a world leading organisation which carries out research in construction matters and the Built Environment. The BRE was tasked by DEFRA to advise on construction waste and provide benchmarking data. It collected waste data, based on minimum reporting requirements (developed in consultation with industry) and used this data to form self-updating performance indicators and benchmark figures.

Data from the benchmarking website, BRE's SMARTStart system (a waste management system used by contractors to assess and target waste at the outset of their construction projects and then monitor actual waste consumption against targets) and the SMARTWaste Plan, have been used to develop the Performance Indicators.

The performance indicators are based on actual volumes for completed new build projects and are currently measured and updated every three months.

The key performance indicators used are m3 waste per 100m2 floor area and m3 waste per £100k project value.

CONTRACTORS' GENERAL CODE OF SAFE PRACTICE

ACCEPTANCE FORM

TO BE COMPLETED, SIGNED AND RETURNED TO THE UNIVERSTIY OF EXETER

I wish to acknowledge receipt of and acceptance of the conditions contained within the UNIVERSITY OF EXETER, CONTRACTORS' GENERAL CODE OF SAFE PRACTICE Rev F June16.

CONTRACTOR.....……..

ADDRESS.....….

.....

.....

TELEPHONE (DAY).....

TELEPHONE (OUT OF HOURS).....

EMAIL ADDRESS …….....

SIGNED …….....

NAME..... …….....

JOB TITLE …….....

DATE …….....