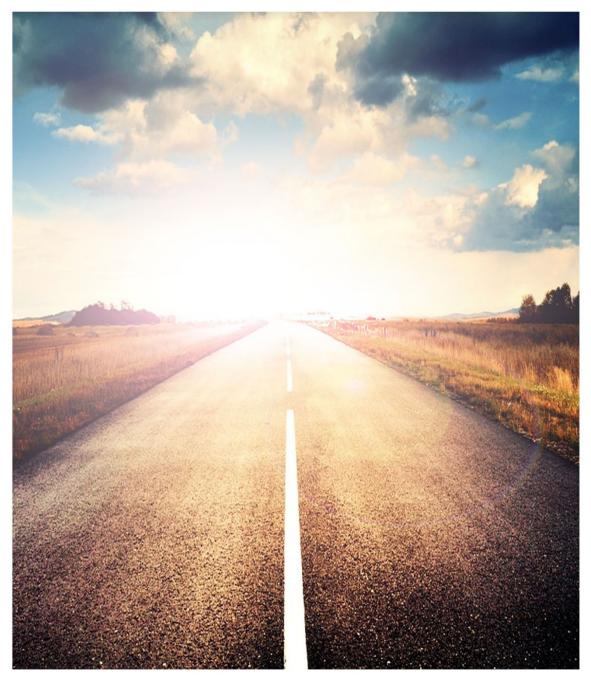


# UHSP-28b: Construction, Design & Management (CDM)



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#### 1. Objective

All Construction work undertaken by or on behalf of the University of Leicester is subject to the Construction, (Design & Management) Regulations 2015. The University is committed to the aims of this Regulations and recognises that it has duties and obligations under the CDM Regulations 2015.

#### 2. Scope

This procedure applies to all construction works, planned, undertaken by or on behalf of the University. It applies to all University sites and offsite construction activities under its control and outlines the duties and responsibilities of the University of Leicester, Estates and Digital Services and other duty holders.

It identifies the mandatory requirements in relation to the Management of Health and Safety in Construction, Design & Management.

The Client (University of Leicester / Estates and Digital Services (EDS) will notify (if applicable) the HSE of construction works according to Regulation 6, unless this duty is formally discharged to the Principal Designer or other duty holder.

#### 3. Definitions

**University of Leicester - Construction works flowcharts (see Appendix I).** This Appendix in flowchart format sets the requirements and outputs from construction projects that duty holders under CDM and other named positions should follow.

Construction Work. The carrying out of any building, civil engineering or engineering construction

CDM. Construction (Design and Management) Regulations 2015 (CDM 2015)

**The RIBA Plan of Work.** Organises the process of briefing, designing, constructing, maintaining, operating and using building projects into a number of key stages. It details the tasks and outputs required at each stage, which may vary or overlap to suit specific project requirements. Relevant University of Leicester's construction projects will follow the RIBA Stages.

**Client.** Anyone who has contracted, or construction work carried out for them. The main duty for clients is to make sure their project is suitably managed, ensuring the health and safety of all who might be affected by the work, including members of the public.

**Commercial Client.** Under CDM 2015 they have construction work carried out as part of their business. This could be an individual, partnership or company and includes property developers and companies managing domestic properties

**Domestic Client.** Under CDM 2015 they have construction work carried out for them but *not* in connection with any business – usually work done on their own home or the home of a family member.

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**Designer.** An organisation or individual whose work involves preparing or modifying designs, drawings, specifications, bills of quantity or design calculations. Designers can be architects, consulting engineers and quantity surveyors, or anyone who specifies and alters designs as part of their work.

**Principal Designer (PD).** A designer appointed by the client to control the pre-construction phase on projects with more than one contractor.

**Principal Contractor (PC).** A contractor appointed by the client to manage the construction phase on projects with more than one contractor

**Contractor.** An individual or business in charge of carrying out the supply of goods and services for construction work (e.g. building, altering, maintaining or demolishing).

**Sub-Contractor.** A subcontractor is an individual or in many cases another business that signs a contract to perform part or all of the obligations of another's contract.

**Worker.** An individual who actually carries out the work involved in building, altering, maintaining or demolishing buildings or structures. Workers include; plumbers, electricians, scaffolders, painters, decorators, steel erectors and labourers, as well as supervisors like foremen and chargehands.

**Contractor management.** Is the managing of outsourced work performed for an individual or organisation. Contractor management implements a system (such as <u>Reset Compliance Systems</u>) that manages contractors, their safety information, insurance information, training programs and specific documents that pertain to the contractor and the owner client.

**Person in charge of contractors.** Any person from the University directly engaged with the supply of goods and services from contractors and contractor management. Examples include, but are not limited to Authorised Engineers, Project Managers, Appointed Persons, Reactive Maintenance, Heads of Colleges/Departments, Asset managers, Principal Contractors, event management etc.

**Pre-Construction Information (PCI).** Pre-Construction Information is information that it is necessary to provide tendering Principal Contractors as well as to the design team. It enables prospective principal contractors to be fully aware of the project's health and safety and welfare requirements.

Construction Phase Plans (CPP). Construction Phase Plans are a legal requirement of the Construction (Design and Management) Regulations 2015. It records the health and safety arrangements and site rules for the construction phase of the project and must be appropriate for the scale and complexity of the work to be undertaken and risks involved

**Risk Assessment and Method Statements (RAMS).** Risk Assessment and Method Statements are a systematic process of evaluating the potential risks that may be involved in a projected activity or undertaking and details a stepwise methodology in the way a work task or process is to be completed safely.

**Pre-Qualification Questionnaire (PQQ).** sets out a series of questions for potential tenderers to answer regarding their level of experience, capacity and financial standing and may be incorporated in systems such as Reset Compliance Systems.

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**Notifiable Project.** A project is notifiable if the construction work on a construction site is scheduled to last longer than 30 working days and have more than 20 workers working simultaneously at any point in the project; or exceed 500 person days.

**Health & Safety File.** The health and safety file are defined as files appropriate to the characteristics of the project, containing relevant health and safety information to be taken into account during any subsequent project. The file may be uploaded onto the University's current software system. The file is only required for projects involving more than one contractor.

### 4. Responsibilities

It is the University's responsibility to ensure that all employees and any company acting on their behalf understand and comply with this procedure and the University's code of practice for contractors.

**Executive Board.** Demonstrate safety leadership and provide appropriate support to ensure that these procedures are followed, including provision of adequate resources.

**Heads of Department or Corporate Service Divisions.** Demonstrate safety leadership and ensure the implementation of these procedures within their areas of responsibility.

**Health and Safety Services (Health and Safety Business Partner).** Will provide guidance on implementation of this procedure, monitor compliance and ensure that this process is reviewed regularly, following any incident/investigation or after any significant changes.

**Person in charge of contractors.** Must act in accordance with the processes outlined in UHSP28a: Control of Contractors

**Client.** Is the University or for smaller construction projects the operational area (College, department etc.). They shall:

- Assemble the project team.
- Where applicable appoint duty holders at the right time.
- Ensure sufficient time and resources are allocated to the project.
- Prepare and provide relevant information (pre-construction information) to other duty holders appointed or those being considered for appointment to the project.
- Prepare a 'Clients brief' which sets out the main function and operational requirements of the finished project, safety risks, timeframe and budget.
- Notify the HSE of the works (F10) where the construction project is deemed notifiable as per the regulations.
- Ensure the roles, functions and responsibilities of the project team are clear.
- Ensuring that workers are provided with suitable welfare facilities for the duration of construction work.
- Ensure that the Principal contractor (or contractor for single contractor projects) prepares a construction phase plan before that phase begins
- Ensure that the Principal designer prepares a health and safety file for the project and that it is revised as necessary and made available to anyone who needs it for subsequent work at the site.

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• The above duties may be formally discharged to other duty holders such as the Principal Designer and Principal Contractor as set out in local EDS or other procedures.

**Designer.** The designer's duties apply as soon as designs which may be used in construction work in are started. A designer must not start any design work unless they are satisfied the client is aware of the duties clients have under CDM 2015. In addition, a designer shall:

- Have sufficient knowledge of client duties to give sufficient advice about the project. The level
  of advice will depend on the knowledge and experience of the client and the complexities of
  the project
- Must take account during the preparing or modifying designs, the general Principles of prevention, and the pre-construction information provided to them, with the aim, as far as reasonably practicable, of eliminating foreseeable risks
- Do as much as is reasonable at the time the design is prepared. Risks that cannot be addressed at the initial stage of a project may need to be reviewed later on during detailed design. On projects involving more than one contractor, the Principal Designer will lead in managing the review process.
- Liaise with any other designers, including the Principal Designer, so that work can be coordinated to establish how different aspects of designs interact and influence health and safety.
- Cooperate with contractors and Principal Contractors so that their knowledge and experience about, e.g. the practicalities of building the design, is taken into account

**Principal Designer.** In liaison with the client and Principal Contractor, the Principal Designer has an important role in influencing how the risks to health and safety should be managed and incorporated into the wider management of a project. The Principal Designer shall:

- Plan, manage, monitor and coordinate the pre-construction phase
- Take account of the general Principles of prevention
- Ensure as far as reasonably practicable that everyone involved in working on the preconstruction phase cooperates with each other.
- Establish effective communication of information within the project team. This could involve
  holding meetings with others in the design team. Progress meetings with the client and the
  Principal Contractor also provide a way of ensuring work on the project is properly coordinated
- Must ensure that designers comply with their duties. Appropriate checks should be made to
  ensure designers are dealing with design risks appropriately. This can be done as part of the
  design process and through regular progress meetings

The Principal Designer must liaise with the Principal Contractor for the duration of their appointment. During the pre-construction phase this must cover sharing information that may affect the planning, management, monitoring and coordination of the construction phase – in particular, the information needed by the Principal Contractor to prepare the construction phase plan.

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If the Principal Designer's appointment finishes before the end of the project, they must ensure that the Principal Contractor has all the relevant information so that the Principal Contractor is aware of the risks which have not been eliminated in the designs, understands the means employed to reduce or control those risks; and understands the implications for implementing the design work for the rest of the project.

The Principal Designer must prepare the Health and Safety File, and review, update and revise it as the project progresses. If their appointment continues to the end of the project they must also pass the completed file to the client to keep. If the Principal Designer's appointment finishes before the end of the project, the file must be passed to the Principal Contractor for the remainder of the project. The Principal Contractor must then take responsibility for reviewing, updating and revising it and passing it to the client when the project finishes.

**Principal Contractor.** They are appointed by the Client and must possess the skills, knowledge, and experience, and (if an organisation) the organisational capability to carry out their role effectively given the scale and complexity of the project and the nature of the health and safety risks involved.

In planning, managing, monitoring and coordinating the construction phase, a Principal Contractor must take account of the following general Principles of prevention:

- The Principal Contractor should be appointed by the Client before the construction phase begins to allow them to work closely with the Client for the life of the project, and the Principal Designer for the remainder of their appointment.
- Principal Contractor must ensure anyone they appoint has the skills, knowledge, and
  experience and, where they are an organisation, the organisational capability to carry out the
  work in a way that secures health and safety.
- For projects involving more than one contractor, the Principal Contractor is responsible for drawing up the Construction Health and Safety Plan or for making arrangements for it to be drawn up. For single contractor projects, it is the Contractor who is responsible for ensuring that the plan is drawn up
- A Principal Contractor has a specific duty to ensure that contractors under their control
  cooperate with each other so the risks to themselves and others affected by the work are
  managed effectively. This includes ensuring contractors who start work at different stages of
  the construction phase cooperate with each other so any information and instruction relevant
  for a new contractor to carry out their work safely is provided to them. Regular planning
  meetings between the Principal Contractor and contractors are an effective way of ensuring
  this.
- The Principal Contractor must ensure every site worker is given a suitable site induction. The induction should be site specific and highlight any particular risks.
- The Principal Contractor must ensure reasonable steps are taken to prevent unauthorised
  access onto the construction site. They should liaise with the contractors on site to physically
  define the site boundaries by using suitable barriers which take account of the nature of the
  site and its surrounding environment. The Principal Contractor should also take steps to ensure
  that only those authorised to access the site do so.
- The Principal Contractor must ensure that suitable and sufficient welfare facilities are provided and maintained throughout the construction phase. What is suitable and sufficient will depend on the size and nature of the workforce involved in the project. Facilities must be made

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- available before any construction work starts and should be maintained until the end of the project.
- They should also liaise with the Principal Designer throughout the construction phase on matters such as changes to the designs and the implications these changes may have for managing the health and safety risks.
- The Principal Contractor must consult and engage with workers.

**Contractors.** Anyone who is directly employed or engaged for the construction work or manages construction is a contractor. Contractors include sub-contractors, any individual, sole trader, self-employed worker, or business that carries out, manages or controls construction work as part of their business. This also includes companies that use their own workforce to do construction work on their own premises. The following duties on contractors will apply whether the workers under their control are employees, self-employed or agency workers:

- A contractor must plan, manage and monitor construction work carried out either by the
  contractor or by workers under the contractor's control, to ensure that, so far as is reasonably
  practicable, it is carried out without risks to health and safety
- A contractor must not employ or appoint a person to work on a construction site unless that
  person has, or is in the process of obtaining, the necessary skills, knowledge, training and
  experience to carry out the tasks allocated to that person in a manner that secures the health
  and safety of any person working on the construction site
- A contractor must provide each worker under their control with appropriate supervision, instructions and information so that construction work can be carried out, so far as is reasonably practicable, without risks to health and safety
- A contractor must not begin work on a construction site unless reasonable steps have been taken to prevent access by unauthorised persons to that site
- Where there is more than one contractor working on a project, a Contractor must comply with any directions given by the Principal Designer or the Principal Contractor, and the parts of the construction phase plan that are relevant to that Contractor's work on the project
- If there is only one contractor working on the project, the contractor must draw up a construction phase plan, or make arrangements for a construction phase plan to be drawn up, as soon as is practicable prior to setting up a construction site.
- The contractor should monitor their work to ensure that the health and safety precautions are appropriate, remain in place and are followed in practice.
- On projects involving more than one contractor, as part of the duty to cooperate with other
  duty holders, the contractor should provide the Principal Contractor with any relevant
  information that stems from their own monitoring so the Principal Contractor can monitor the
  management of health and safety at a project-wide level.
- For projects involving more than one contractor, the contractor is required to comply with any
  directions to secure health and safety given to them by the Principal Designer or Principal
  Contractor. They are also required to comply with the parts of the construction phase plan that
  are relevant to their work, including the site rules.
- For single contractor projects, the contractor must ensure a construction phase plan is drawn up as soon as practicable before the construction site is set up.
- A contractor who employs workers or manages workers under their control must ensure that appropriate supervision is provided.

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Contractors should provide their employees and workers under their control with the information and instructions they need to carry out their work without risk to health and safety. This must include:

- Suitable site induction where this has not been provided by the Principal Contractor
- The procedures to be followed in the event of serious and imminent danger to health and safety should be made clear at Induction of any worker exposing themselves or others to danger and should stop work immediately
- Report the danger to the contractor and go to a place of safety
- Include details of the person to whom such instances should be reported and who has the authority to take whatever prompt action is needed
- Take account of the relevant requirements which set out provisions relating to emergency procedures, emergency routes and exits and fire detection and firefighting
- Information on the hazards on site relevant to their work (eg site traffic), the risks associated with those hazards and the control measures put in place (eg the arrangements for managing site traffic)
- On projects involving more than one contractor, it must be discussed and agreed with the Principal Contractor who is to provide welfare facilities

**Employees.** All University staff are required to cooperate in the implementation of these procedures and follow any rules implemented to control the risk. They must report any unsafe practices or concerns regarding construction work or contractor to their line manager or health and safety services immediately.

#### 5. Procedure

Construction work is defined as the carrying out of any building, civil engineering or engineering construction work and includes:-

- a) the construction, alteration, conversion, fitting out, commissioning, renovation, repair, upkeep, redecoration or other maintenance (including cleaning which involves the use of water or an abrasive at high pressure, or the use of corrosive or toxic substances), decommissioning, demolition or dismantling of a structure;
- b) the preparation for an intended structure, including site clearance, exploration, investigation (but not site survey) and excavation (but not pre-construction archaeological investigations), and the clearance or preparation of the site or structure for use or occupation at its conclusion;
- c) the assembly on site of prefabricated elements to form a structure or the disassembly on site of the prefabricated elements which, immediately before such disassembly, formed a structure;
- d) the removal of a structure, or of any product or waste resulting from demolition or dismantling of a structure, or from disassembly of prefabricated elements which immediately before such disassembly formed such a structure;
- e) the installation, commissioning, maintenance, repair or removal of mechanical, electrical, gas, compressed air, hydraulic, telecommunications, computer or similar services which are normally fixed within or to a structure.

#### **Pre-construction phase**

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For complex and high-risk projects, Estates & Digital Services will assume the role of the Client. Where smaller construction works are required within the University, the organisation area will assume the role of client. This includes all student accommodation, Colleges and departments. The Client will formally appoint individuals/organisations with the skills, expertise and capabilities to fulfil the role of Principal Designer and Principal Contractor. Depending on the risk profile and/or complexity of the works involved, the role of Principal Contractor and role of Principal Designer can be undertaken by the University's Project Managers or associated framework associates. When appropriate, the University of Leicester may use in-house Principal Designer(s) for projects.

The appointment of duty holders must occur as soon as practicable and before the start of the construction phase. This is to ensure they have enough time to carry out their duties in planning and managing the pre-construction and construction phases respectively.

The extent of the checks the Client must make into the capabilities of duty holders they appoint will depend on the complexity of the project and the range and nature of the risks involved. If those appointed are an organisation, the client will ensure that the appointed organisation has the organisational capability to fulfil the requirements under CDM. Pre-qualification questionnaire checks on individuals/organisations will be carried out using the relevant systems, such as <a href="Reset Compliance Systems">Reset Compliance Systems</a>, for EDS appointed contractors.

**Monitoring and performance of operational procedure.** The implementation of this procedure will be monitored by periodic reviews of risk assessments, sample audits and inspections and feedback from progress meetings. Active monitoring will be carried out as a formal check that all aspects of safety performance are at an acceptable level.

**Training and Support.** The skills, knowledge, training and experience of an individual or organisation must be assessed prior to their appointment. The person(s) responsible for appointing designers (including Principal Designers) or contractors (including Principal Contractors) to work on a project must ensure that those appointed have the skills, knowledge, resource and experience to carry out the work in such a way that secures health and safety.

#### Health and Safety File

At the end of the project, a health and safety file should be prepared and made available, including uploading onto University Systems where relevant. This should have all the information to alert those carrying out subsequent construction work or maintenance on the building all that is needed to be able to plan and carry out the work safely and without risks to health.

To ensure that an appropriate health and safety file is produced at the end of the project, the Client must:

- Provide the Principal Designer with any existing file produced as part of an earlier project so the information it contains can be used to plan the pre-construction phase of the current project;
- Ensure the Principal Designer prepares a new file (or revises any existing one);
- Ensure the Principal Designer reviews and revises the file regularly and passes the completed file back at the end of the project
- Ensure the file is handed to the Principal Contractor if the Principal Designer's appointment finishes before the end of the project;

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- Ensure the file is kept available for anyone who needs it to comply with the relevant legal requirements;
- Pass the file to whoever takes over the building and takes on the Client duties decides to dispose of their interest in it.

The file must contain information about the current project likely to be needed to ensure health and safety during any subsequent work, such as maintenance, cleaning, refurbishment or demolition. When preparing the health and safety file, information on the following should be considered for inclusion:

- A brief description of the work carried out
- Any hazards that have not been eliminated through the design and construction process, and how
  they have been addressed (eg: surveys or other information concerning asbestos or contaminated
  land)
- Key structural Principles (eg: bracing, sources of substantial stored energy including pre or posttensioned members) and safe working loads for floors and roofs
- Hazardous materials used (eg Lead paints and special coatings)
- Information regarding the removal and or dismantling of installed plant and equipment (any special arrangements for lifting such items)
- Health and safety information about the equipment provided for cleaning or maintaining the structure
- The nature, location and markings of significant services, including underground cables; gas supply equipment, water, and fire-fighting equipment etc
- Information and as-built drawings of the building, its plant and equipment (eg: the means of safe access to and from service voids and fire doors)

There should be enough detail to allow the likely risks to be identified and addressed by those carrying out the work. However, the level of detail should be proportionate to the risks. The file should not include things that will be of no help when planning future construction work such as pre-construction information, the construction phase plan, contractual documents, safety method statements etc. Information must be in a convenient form, clear, concise and easily understandable. Health and Safety Files shall be provided as follows:

- One hard copy on A4 paper with large format documents (drawings) folded
- One copy provided in indexed Portable Document Format on a DVD or other such tool.
- Uploaded on the current University System

#### 6. Related documents

- HSG65 Successful health and safety management
- HSG 159 Managing contractors A guide for employers
- INDG 386 Using contractors A brief guide
- <u>L153</u> Managing health and safety in construction Construction (Design and Management)
   Regulations 2015

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- INDG 411 Need building work done? A short guide for clients on the Construction (Design and Management) Regulations 2015
- Reset Competence-verification scheme
- Construction Industry Training Board (CITB)
- EDS Construction work local procedures and forms
- EHSG-001 General Code of Safe Practice for Construction, Maintenance, Installation and Repair

## 7. Revision History

Date of Issue	Version number	Amendments Made
31/01/2020	1.0	First issue
14/12/2020	1.1	Minor changes (Reset added, related docs reduced, ECS
		updated to EDS, Appendix Added with Construction
		flowcharts) by Mubin Chowdhury HSBP for AMC

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**Appendix I: University of Leicester Construction Projects Flowcharts** setting responsibilities and outputs for 3 types of construction works (1. Major Projects, 2.External Principal Designer and 3. In House Construction Compliance) that duty holders and other named positions should follow

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