

Appendix 14

BWS - Principal Designer



RIBA Stage 2 Concept CDM Report

Cambridge Civic Quarter

RIBA Stage 2 Concept CDM Report

Refurbishment & Improvement of Civic Quarter

at

The Guildhall, Market Square and Corn Exchange

Cambridge

CB1

for

Cambridge City Council

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The Guildhall, Market Square and Corn Exchange, Cambridge CB1

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INTRODUCTION

Building & Workplace Solutions Ltd (BWS) were appointed in April 2024 as a member of the multi-disciplinary consortium led by Cartwright Pickard Architects to undertake a commercial appraisal to RIBA Stage 2: Concept Design, for the proposed refurbishment and improvement of the Civic Quarter, which includes The Guildhall, Market Square and the Corn Exchange.

The CDM Principal Designer is a statutory role under the *Construction (Design and Management) Regulations 2015 (CDM)* responsible for planning, managing, monitoring and coordinating health and safety in the pre-construction phase of a project. The intent of the regulations is for the client to take responsibility for the management arrangements to ensure that designers take responsibility for the health and safety aspects of their design, including any implications for maintenance and operation, and to ensure that a Principal Designer takes responsibility for coordinating health and safety in the design process.

RIBA Stage 2 is about getting the design concept right and making sure that the look and feel of the building is proceeding in line with the client's vision, brief and budget. The key CDM actions at Stage 2 is to identify the management requirements and ensure that the concept design meets the stage objectives whilst recognising the potential risks to those constructing, using and maintaining the buildings. In reality, the risks identified at Stage 2 are focussed on the overall concept rather than detail, but some specific detail is included where this will inform Stage 3. The following report therefore focuses on:

1. The ongoing organisation and management arrangements required for Stage 3;
2. Significant hazards identified within any record information provided by the Cambridge, together with any early pre-construction surveys undertaken by the consortia; and
3. Significant hazards identified by the designers and the Principal Designer during the Stage 2 concept design

The information contained herein is specific to this project and is based upon the design information provided at Stage 2. The summary therefore identifies the progress made against the client's role and responsibilities under CDM, the ongoing roles and responsibilities of the various stakeholders, the pre-construction information currently made available by the client, and the hazards identified during Stage 2.

SECTION 1.0 THE SITE AND PROJECT DETAILS

Identifying the specific project details, including the design, existing site conditions, requirements for statutory notices, site management requirements, and lists the significant hazards identified by the client and designers that could not be eliminated through the pre-construction design process.

1.1 THE BRIEF

The brief for the Civic Quarter was outlined within the original PPQ and further clarity was added by the Council on 21 May 2024, together with further later instructions from the Labour Group, as described in Cartwright Pickard's Stage 2 Concept Design Report.

1.1.1 The Guildhall

Following a series of presentations of design options to the Council the Consortium were instructed to stop work on the hotel option for the Guildhall and focus only on incorporating leased workspace into areas of the Guildhall that were not required by CCC for its own occupation. Subsequent instruction on 04 September 2024 included the requirement for incorporating The Museum of Cambridge into the Guildhall subject to additional funding.

The brief includes workspace requirements, customer service centre requirements, and civic function requirements. The Guildhall is a Grade II listed building and heritage constraints have been considered while developing proposals to address four key drivers of the brief requirements:

Sustainability – the Council will require the Guildhall to be an exemplar project with a Net Zero Carbon aspiration.

Office – the proposals should demonstrate that the Guildhall is capable of providing sufficient modern office desk space to accommodate current and future needs of the Council.

Civic function – the proposals should demonstrate how the core civic functions will continue to be met. In addition, the building should accommodate a Customer Service function for the public, which is currently provided at Mandela House.

Commercial use – the Guildhall currently provides a range of commercial income generating uses. Opportunity should be taken to maximise commercial use including office, conferencing and civic functions.

1.1.2 Market Square

In March 2022 a report to the Environment and Community Scrutiny Committee approved the updated vision for the Market Square: “An inspiring, strategic public realm heart to the city centre, the market square will be welcoming to all to work, visit and spend time here. A 21st century international and local multigenerational and multi-cultural space, celebrating Cambridge’s history and heritage, it integrates a thriving, sustainable, accessible, safe and open environment, connecting the surrounding streets with spaces to shop, wander, stop and socialise. A bustling 7-day market, space for seating and eating, additional business and social opportunities and engaging and inclusive cultural events will add to the richness of the area, making this an active day and evening hub in the city centre for local businesses, residents, and the wider community.”

The design improves the Market Square, reinstating the historic importance of the Guildhall in the public life of the city. Initial concept design work was undertaken in 2021 in response to stakeholder workshops that were held in 2020 that identified a number of areas that limit the potential of the current market square. These areas included a lack of seating and space to gather or eat outside, limited accessibility due to uneven surface and the surrounding highway uses, and lack of an evening offer.

1.1.3 Corn Exchange

The Corn Exchange is one of the largest venues for concerts outside London and within East Anglia. It is a much loved concert, events and conference venue with 133,000 visitors per annum but the brief is focussed on lowering the current significant operating costs.

The design is based on extension and refurbishment of the hall to improve acoustics and provide a more attractive destination.

1.2 AVAILABLE PRE-CONSTRUCTION SURVEYS, RECORDS AND PLANS

1.2.1 Available Survey Information

No existing Health & Safety Files have been made available for any of the existing structures. At Stage 2 The client has made available the following pre-construction surveys describing the condition and respective site hazards:

- Corn Exchange Drawings from 1979
- Asbestos Management Survey Report for The Guildhall by Lucion Environmental Ltd, reference 235266 dated 26 June 2018
- Asbestos Re-Inspection Report for The Guildhall by Thames Laboratories, reference J284400 dated 04 July 2024
- Domestic Asbestos Management Survey Report for The Market Square by Thames Laboratories, reference J286470 dated 01 August 2024
- Existing Basements drawing by LDA Design, drawing number 9496_SK_0004 dated July 2024

The consortia have also procured a Point Cloud Survey to help deliver a BIM 3D model.

1.2.3 Ongoing Survey Requirements

A suite of additional surveys will be required to define the condition of existing structures and the associated health and safety risks which will inform the ongoing special and technical design stages. These surveys will also inform the commercial risk register.

The consortia will agree a full list of pre-construction surveys during Stage 3 based on the following basic list for each structure:

1. Structural surveys, including
2. Conditional building surveys
3. Heritage/Listed Building Assessment
4. Archaeological Risk Assessment
5. Topographical surveys
6. Phase I desk study and Phase II intrusive ground investigation, including contamination risk assessment
7. Underground utility desk top surveys and ground penetrating radar utility survey to PAS128 to determine the location of existing mains utility services within the Market Square and public realm
8. Fully intrusive Refurbishment & Demolition Asbestos Surveys (See 1.2.3 below)
9. Lead surveys to determine to probable existence of lead paint throughout the buildings
10. Ecology surveys as may be required by the local planning authority

11. Flood Risk Assessment (The site is located within Environment Agency (EA) Flood Zone 1, comprising land assessed as having a less than 0.1% annual probability of river flooding).
12. Transport assessment as may be required by the local planning authority
13. Air quality reports as may be required by the local planning authority
14. Background acoustic assessment used as a benchmark for future plant noise attenuation requirements
15. Drainage CCTV survey

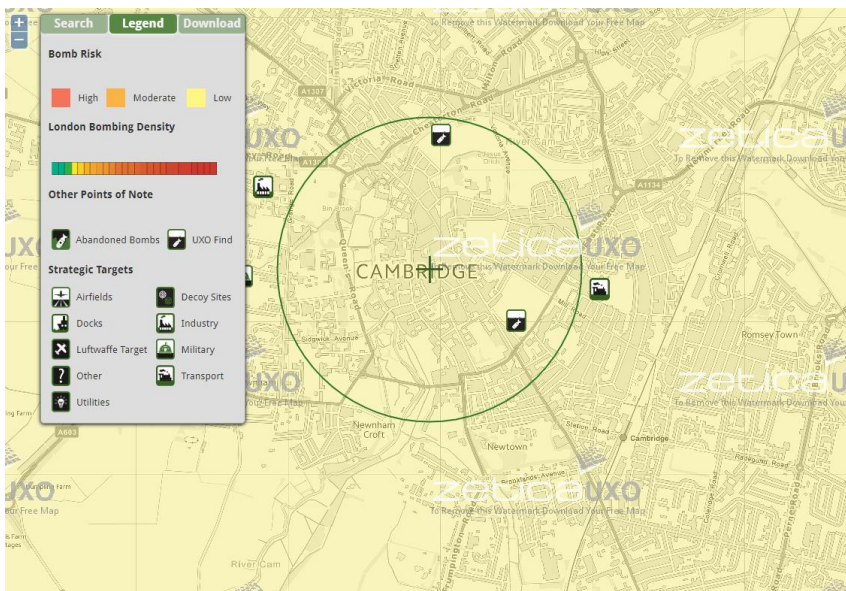
1.2.3 Asbestos

BWS attended a meeting on 09 July 2024 with CCC's asbestos team to discuss existing residual asbestos in the Guildhall basement following previous licenced removal, and overall apparent lack of appropriate asbestos records for all the buildings. It was agreed that CCC would be responsible for decontamination of the basement to facilitate safe access for ongoing general survey work and undertaking all necessary surveys to manage the building in compliance with *The Control of Asbestos Regulations 2012*.

CCC remain responsible for controlling access to the basement and arranging for a full R&D survey and asbestos removal to the basement to effectively remove any risk for the future redevelopment, albeit that a full decontamination may not be possible as some of the residual asbestos may be in inaccessible locations, such as behind ductwork. The remaining floors within the Guildhall, the Market and Corn Exchange would remain for the consortium to undertake fully intrusive Refurbishment & Demolition surveys to HSG 264 as appropriate, together with any subsequent removals as part of the future construction works.

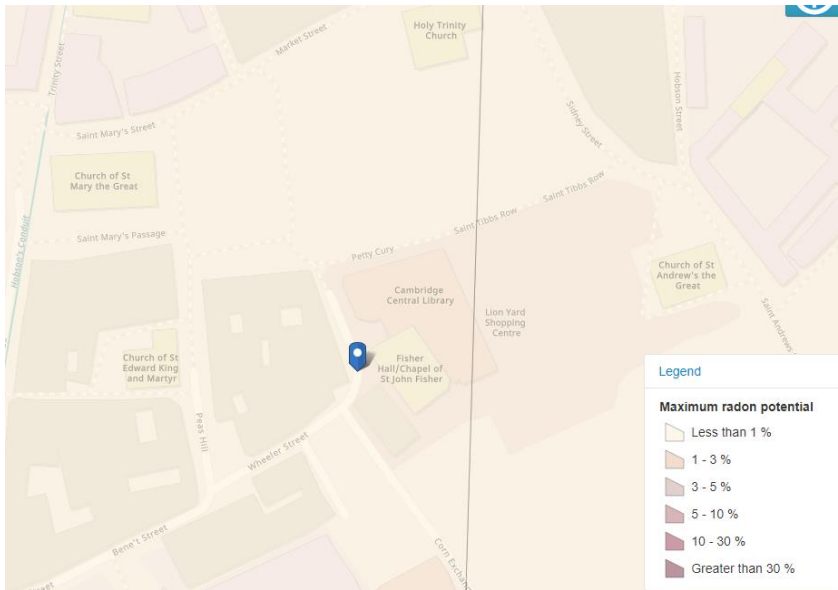
1.2.4 UXB Risk

Unexploded bomb risk will be assessed as part of the ground investigation report. However, publicly available Zetica Risk Maps indicate that the site is 'Low Risk'.



1.2.5 Radon

Similarly, publicly available UK Radon Maps indicate that the site is within a 'Low Risk' for Radon.



1.3 PROCUREMENT STRATEGY

Initial discussions have been undertaken regarding the most appropriate procurement route based on either a two-stage design and build solution or a competitive specification and drawings with contractor design portion. We advise that early appointment of a principal contractor will benefit the design process by bringing a specialist to the table with the inherent advantage of input on construction logistics, programme, contractor and materials procurement, quality and cost, etc. There is also the benefit that early appointment of the principal contractor facilitates a clear means to undertake any additional surveys and associated open-up works.

Once appointed, the principal contractor will be the “Lead Designer” responsible for coordination of the design and ensuring coordination and cooperation between all designers, including the consultant, contractor and temporary works designers.

Arrangements under *The Building Safety Act 2022* (BSA), including appointment of the BSA Principal Designer, remains to be agreed. However, CCC shall note that this is a separate role to the Principal Designer under the *Construction (Design and Management) Regulations 2015*.

SECTION 2.0 CDM ORGANISATION AND MANAGEMENT ARRANGEMENTS

2.1 GENERAL ROLES & RESPONSIBILITIES

The roles and responsibilities of all stakeholders are those specifically described by CDM2015, the supporting HSE Guidance L153:

CDM Duty Holders – Who are they?	Summary of role/main duties
<p>Clients</p> <p>Organisations or individuals for whom a construction project is carried out.</p>	<p>Make suitable arrangements for managing a project, including making sure that:</p> <ul style="list-style-type: none"> • other duty holders are appointed • sufficient time and resources are allocated <p>Clients must also make sure that:</p> <ul style="list-style-type: none"> • relevant information is prepared and provided to other duty holders • the principal designer and principal contractor carry out their duties • welfare facilities are provided
<p>Principal Designer</p> <p>Designers appointed by the client in projects involving more than one contractor. They can be an organisation or an individual with sufficient knowledge, experience and ability to carry out the role.</p>	<p>Plan, manage, monitor and co-ordinate health and safety in the pre-construction phase of a project.</p> <p>This includes:</p> <ul style="list-style-type: none"> • identifying, eliminating or controlling foreseeable risks • ensuring designers carry out their duties <p>Prepare and provide relevant information to other duty holders.</p> <p>Provide relevant information to the principal contractor to help them plan, manage, monitor and co-ordinate health and safety in the construction phase.</p>
<p>Designers</p> <p>Those who, as part of a business, prepare or modify designs for a building or product, or prepare or modify designs to systems relating to construction work.</p>	<p>When preparing or modifying designs, eliminate, reduce or control foreseeable risks that may arise during:</p> <ul style="list-style-type: none"> • construction and • the maintenance and use of a building once it is built <p>Provide information to other members of the project team to help them fulfil their duties.</p>
<p>Principal Contractor</p> <p>Contractors appointed by the client to co-ordinate the construction phase of a project where it involves more than one contractor.</p>	<p>Plan, manage, monitor and co-ordinate health and safety in the construction phase of a project. This includes:</p> <ul style="list-style-type: none"> • liaising with the client and principal designer • preparing the construction phase plan • organising co-operation between contractors and co-ordinating their work. <p>Ensure that:</p> <ul style="list-style-type: none"> • suitable site inductions are provided • reasonable steps are taken to prevent unauthorised access • workers are consulted and engaged in securing their health and safety • welfare facilities are provided.
<p>Contractors</p> <p>Those who do the actual construction work. They can be either an individual or a company.</p>	<p>Plan, manage and monitor construction work under their control so that it is carried out without risks to health and safety.</p> <p>For projects involving more than one contractor, co-ordinate their activities with others</p>

	<p>in the project team – in particular, comply with directions given to them by the principal designer or principal contractor.</p> <p>For single-contractor projects, prepare a construction phase plan.</p>
<p>Workers</p> <p>The people who work for or under the control of contractors on a construction site.</p>	<p>They must:</p> <ul style="list-style-type: none"> • be consulted about matters which affect their health, safety and welfare • take care of their own health and safety and that of others who may be affected by their actions • report anything they see which is likely to endanger either their own or others' health and safety • co-operate with their employer, fellow workers, contractors and other duty holders.

2.2 THE MAIN DUTY HOLDERS

The CDM Regulations place responsibility for managing the health and safety of a construction project on three main duty holders. The client has overall responsibility for the successful management of the project and is supported by the principal designer and principal contractor in different phases of the project. For the successful delivery of a project, good working relationships between the duty holders are essential from the start.

The client ensures that the construction project is set up so that it is carried out from start to finish in a way that adequately controls the risks to the health and safety of those who may be affected.

The principal designer manages health and safety in the pre-construction phase of a project. The role extends to the construction phase through the principal designer's duties to liaise with the principal contractor and ongoing design work.

The principal contractor manages the construction phase of a project. This involves liaising with the client and principal designer throughout the project, including during the pre-construction phase.

The principal designer and principal contractor will be supported by designers, contractors and workers.

2.3 CLIENT RESPONSIBILITIES

As the client, you must make suitable arrangements to ensure that, throughout the planning, design and construction of a project, adequate consideration is given to the health, safety and welfare of all those affected and involved in the construction work.

Your arrangements should be appropriate to the nature of the work and enable other duty holders to carry out their work without risk to themselves or anyone else who may be affected.

As a medium complexity project, the management arrangements at this stage should:

- Include requirements for how the project is to be run, taking into account any risks to the public
- Explain how you will select and appoint designers and contractors to ensure they have the necessary capabilities for the work they are required to do
- Allocate sufficient time and resources to each stage of the project, from concept through to completion
- Define what is expected of the design team to ensure that they consider health and safety risks for the construction phase, as well as when maintaining and using the building once it is built
- The arrangements for procuring the design and construction team, including establishing that designers and contractors are adequately trained, and have the right skills and experience of health and safety

- The arrangements for monitoring designers' and contractors' performance, for example by arranging progress meetings with the principal designer and principal contractor to ensure that the project runs in line with your expectations and meets legal requirements. The meetings also give you the opportunity to take action where that is not the case

The role of CDM Client makes you accountable for the impact of your procurement decisions and the approach designers and contractors have to health, safety and welfare throughout the pre-construction and construction phases. You are required to define the scope of the project and make suitable arrangements to properly manage health, safety and welfare, including monitoring the arrangements throughout the design and construction phases.

Prior to construction CCC should:

- 1. Ensure that those you directly appoint as designers or contractors demonstrate the skills, knowledge and experience of the type and scale of project and that they have the organisational arrangements and resources to ensure that the work can be delivered in a way that secures health and safety. This includes any client direct specialist contractors.**

Whist CCC undertook a prequalification of the consortium team members prior to engagement for the Stage 2 review this did not include specific skills, knowledge, experience and organisational capabilities necessary to fulfil the role that they are appointed to undertake, in a manner that secures the health and safety of any person affected by the project.

It is intended that a portfolio of evidence to this effect is gathered during Stage 3 as part of the golden thread of evidence necessary under CDM 2015.

CCC should sign a declaration that you are aware of your duties under The Construction (Design and Management) Regulations 2015 for issue to all designers and contractors by BWS.

- 2. Appoint a Principal Designer in writing.**

Whilst the consortia have been engaged to undertake all necessary roles, including CDM Principal Designer, this does not constitute a formal written appointment. Until CCC make this appointment you remain responsible for the respective principal designer duties.

- 3. Define a Brief detailing your aims and aspirations, requirements and expectations.**

A development brief has been issued to inform the consortia prior to commencement of Stage 2, which has been revised as described in Section 1.1 above.

The brief for the Civic Quarter was outlined within the original PPQ and further clarity was added by the Council on 21 May 2024, as described in Cartwright Pickard's Stage 2 Concept Design Report. The design response to the brief has been continuously reviewed

The Stage 2 Report will further enhance the brief to focus Stage 3 Spatial Coordination.

- 4. Make suitable Arrangements to ensure that, throughout the planning, design and construction of the project adequate consideration is given to the health, safety and welfare of all those affected by the project, including ultimate building occupants and maintenance contractors.**

Adequate consideration of health and safety risks and associated controls has been made by the consortia during the Stage 2 concept design, coordinated through a combination of formal design meetings and traditional design coordination.

Refer to the attached Foreseeable Risk Register - Section 4 below.

- 5. Provide pre-construction information to all designers and contractors as soon as possible on the site to define the level of existing risk to health and safety posed by the site and any structures on it. This includes any existing Health and Safety File together with any surveys that you can reasonably undertake.**

Refer to Section 1.2 above.

6. Ensure that the arrangements you made for managing health and safety during the pre-construction and construction phases are working successfully.

Refer to Appendix A for Draft Management Arrangements to be coordinated with the design team through the following design and construction phases. In addition, the following detailed controls will be incorporated with the Pre-Construction Information Pack for inclusion in the tender documents:

- Planning and Management Including Health and Safety Goals
- Communication and Liaison Between Client and Others
- Provision For Site Security
- Provision For Welfare
- The Health, Safety and Welfare Of Visitors
- Vehicular Access, Traffic Systems and Restrictions
- Pedestrian Access and Restrictions
- Fire Precautions
- Emergency Procedures
- Location Of Nearest Accident and Emergency Services
- Additional Arrangements for Working In Occupied Building(S)
- Site Rules
- Temporary Works

7. Make suitable arrangements for completion and handover, especially where there is phased completion or partial possession.

The format of the CDM Health & Safety File will be agreed with CCC prior to completion of Stage 3. Preparation of separate Health & Safety Files for the Guildhall, Corn Exchange and Market Square will be commenced by BWS in accordance with CDM regulation 12 during Stage 3 as pre-construction surveys and more detailed design information is released. This will include, but necessarily limited to, information described in Appendix 4 to the HSE L153:

- a brief description of the work carried out;
- any residual hazards which remain and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc.);
- key structural principles (for example, bracing, sources of substantial stored energy, including pre or post tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there;
- hazardous materials used (for example lead paint; pesticides; special coatings which should not be burnt off etc.);
- information regarding the removal or dismantling of installed plant and equipment (for example any special arrangements for lifting, order or other special instructions for dismantling etc.);
- health and safety information about equipment provided for cleaning or maintaining the structure;
- the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc; and
- information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentalisation etc).

SECTION 3.0 THE DESIGN

Describing the design undertaken prior to commencement, including any design to be undertaken during the construction period. Refer also to **Appendix A – General CDM Management Arrangement** for definition of the general health and safety standards expected to be considered during ongoing design.

3.1 DESIGNED USE

All building will be used as a 'Workplace' and detailed designed to take account of the relevant sections of the Workplace (Health, Safety & Welfare) Regulations 1992 and all associated regulations, including the Regulatory Reform (Fire Safety) Order 2005.

These requirements will be coordinated with the Building Regulations Principal Designer and form part of the Golden Thread of information detailing the compliant design and ongoing management and maintenance requirements to maintain a safe and healthy environment.

4.2 ONGOING DESIGN DEVELOPMENT

The extent of design information to be provided within the planning and subsequent tender documents will reflect the adopted procurement strategy, to be agreed. Significant CDM health, safety and environment risks during pre-construction design will also be influenced by:

- Planning Conditions
- Building Regulations Compliance
- Workplace (Health, Safety and Welfare) Strategy
- Key Structural Principles
- Drainage Strategy
- Safe Maintenance Access Strategy
- Designed Fire Strategy
- Plant Replacement Strategy
- Disabled Access Strategy
- Section 106/278/108/50, or similar works;
- Mains services connections
- Temporary Works

4.3 SIGNIFICANT DESIGN ASSUMPTIONS/SUGGESTED WORK SEQUENCES OR OTHER CONTROLS

The Stage 2 design is not sufficiently detailed to define the processes and methods by which the works will be constructed and maintained, although these processes have been considered in outline. Risks to the health and safety of those working on, or

affected by, the works will be considered during the following stages and, where it is not been feasible to eliminate the respective hazard, residual risks will be included in the Foreseeable Risk Register and final CDM Health & Safety File.

Due to the nature of the buildings, specific focus will be placed on:

- Programme, phasing and work sequences,
- Protection of the public around the buildings taking into consideration access to the external envelope, site security and construction transport management, and
- Safe means of access for future maintenance, repair and plant replacement

4.4 DESIGNED BUILDING STRATEGIES

A Stage 2 Concept **Fire Strategy Report** has been prepared by ARUP. This Stage 2 Concept Fire Strategy sets out the key principles of the fire strategy which will need to be developed by others, into a detailed design.

The following areas have been highlighted as requiring additional investigation in order to discuss and agree with Building Control and the Fire Service:

- Atrium fire protection. It is proposed to demonstrate that rapid fire and smoke spread between levels will be limited using CFD smoke modelling.
- Basement smoke ventilation. It is proposed to demonstrate that sufficient smoke can be ventilated from the basement using CFD smoke modelling.
- Confirm the amendments needed to the means of escape provisions to enable the proposed population numbers.
- Agree the proposed fire-fighting access strategy with the Cambridgeshire Fire and Rescue Service.

The following design strategies will be developed in the planning documentation and tender documents as the design proceeds in order to accurately define the design intent to the principal contractor and building occupants:

Key Structural Principles

The Structural Engineer shall provide a statement on the Key Structural Design Principles and safe working loads for floors and roofs, particularly where these may preclude placing scaffold or heavy machinery there. This statement should include details of the loading criteria to which the structure was designed and how the building is braced, e.g. do the floors support basement walls, and sources of substantial stored energy, e.g. post tensioned or pre-stressed elements. The statement should also include designed structural deflections.

Floor and roof plans coloured to show different loadings are by far the best way of showing this information, especially where there is different criteria on the same floor level.

Highways & Drainage The Civil/Structural Engineer shall provide details of the design decisions taken with respect to the drainage and vehicular movements around the site within a Highways & Drainage Design Statement, to include:

Vehicle tracking showing how vehicles enter and exit site in a forward gear;

How pedestrians and vehicles are segregated, especially where large commercial vehicles are reversing, e.g. in the vicinity of loading doors and escape routes;

Loading criteria for the hard paved areas, especially taking into consideration where cranes can be positioned to remove large items of plant from roofs taking into consideration the possible need to site cranes over surface water attenuation tanks, or similar.

Drainage statement providing details of the design decisions under SUDS or, where SUDS is not applicable, designed maximum flow rates and areas likely to become flooded when this is exceeded.

Incoming Mains Services

The services consultant shall provide a Report on Existing Mains Services on and adjacent to the site, together with a Co-ordinated Services Drawing (included on the topographical survey) showing their existing and proposed locations

Safe Maintenance Access Strategy

Anticipated means of safe access for the cleaning and maintenance of the building fabric and associated services installations, including windows (internal and external), roof access, gutter access, access to smoke detectors and light fittings, and access routes around internal and external plant areas.

Plant Replacement Strategy

Anticipated means by which large items of plant and equipment will be moved into position or replaced, including maximum weight of each piece of plant/equipment, the route that plant/equipment will take when being removed and the location and size of lifting equipment necessary.

Disable Access Strategy

Part M compliance statement and, where the building is designed for a specific user, any additional provision under the Equality Act 2010 such as reasonable adjustments made to existing buildings, the provision of induction loops, etc.

SECTION 4.0 FORESEEABLE HAZARDS

4.1 BASIS OF DESIGN RISK MANAGEMENT

A formal Foreseeable Risk Register will be initiated by BWS during Stage 3 as a tracker for the identification and control of risks in compliance with CDM regulation 9(2) and 9(3) requiring:

the designer must take into account the general principles of prevention and any pre-construction information to eliminate, so far as is reasonably practicable, foreseeable risks to the health or safety of any person—

- *carrying out or liable to be affected by construction work;*
- *maintaining or cleaning a structure; or*
- *using a structure designed as a workplace.*

If it is not possible to eliminate these risks, the designer must, so far as is reasonably practicable—

- *take steps to reduce or, if that is not possible, control the risks through the subsequent design process;*
- *provide information about those risks to the principal designer; and*
- *ensure appropriate information is included in the health and safety file.*

Refer to Appendix A for draft design risk management procedures.

4.2 FORESEEABLE HAZARDS

The following initial significant health and safety hazards (potential to cause harm) have been established within pre-construction surveys and by the pre-construction design team requiring design controls to eliminate or reduce risks in compliance with CDM Regulation 9(2) and 9(3). Design Risk Assessments will also be coordinated with individual design consultants throughout Stages 3 to 6.

4.2.1 Carrying out or liable to be affected by construction work

- Destabilisation or unintentional collapse of load bearing elements of structure during removal or alteration
- Collapse of existing underground Great St Mary's crypts under Market Hill
- Archaeological discovery during groundworks
- Contact with asbestos
- Work on lead painted finished
- Fire
- Contact with ground contamination
- Surface water flood risk
- Falls through fragile materials
- Vehicular and construction risks to members of the public, especially if the Market remains operational through construction
- Contact with live utility services

4.2.2 Maintaining or cleaning a structure

- Falls from height whilst cleaning, maintaining or replacing roof mounted photovoltaic panels
- Inability to safely clean windows
- Inadequate plant replacement strategy

4.2.3 Using a structure designed as a workplace

- Falls or Falling Objects – The suitability of guarding to the existing and proposed plant areas, including parapets, and internal windowsill heights to be established.
- Fixed Ladders and Gantries – The design of permanent access ladders and gantries to be established.
- Roof Work – Safe means of access and egress to flat roofs, gutters and pitched roofs fitted with new photovoltaic panels.
- Changes of level – Making ‘reasonable adjustments’ to enhance inclusive access throughout the buildings in accordance with Approved Document M and The Equality Act 2010.
- Windows, Skylights and Ventilators – Replacement of glass where necessary for compliance with Approved Document K for fragility and fitting opening restrictors where necessary to eliminate the risk to pedestrians.
- Ability to Clean Windows – Defined means of safe access to clean windows taking into consideration modern cleaning and access equipment, whilst enhancing public safety around the buildings.
- Organisation of Traffic Routes – Separation of people and vehicles.
- Doors and Gates – Provision of vision panels and suitable self-closing devices in accordance with Approved Document B (Fire) and M (Access to and use of buildings), and safety features to powered doors.

APPENDIX A GENERAL CDM MANAGEMENT ARRANGEMENTS

INTRODUCTION

This Section is prepared in accordance with Regulation 4(1) of the Construction (Design & Management) Regulations 2015 and paragraph 32 of the Health & Safety Executive's Guide *L153 Managing health and safety in construction*. It forms part of the Pre-Construction Information provided by the Client describing the existing site, the design and procurement strategy, including the format and content of information required at practical completion.

Its content defines the health and safety standards expected from all stakeholders and sets out the arrangements to achieve those standards, including the means by which performance will be monitored, and is intended to form part of the main development brief prepared by the client/architect.

The content defines:

- a. The expected standards of health and safety, including safe working practices, and the means by which these standards will be maintained throughout;
- b. The main health and safety functions and operational requirements of the finished project;
- c. How the project is expected to be managed including its health and safety risks;
- d. Other relevant matters, such as establishing design direction and a single point of contact in the client, principal designer and principal contractor's organisations.
- e. What is expected from the design team in terms of the steps they should reasonably take to ensure their designs help manage foreseeable risk during the construction phase and when maintaining and using the building once complete; and
- f. The arrangements for commissioning the new building and a handover procedure.

The client, designers (including the principal designer), contractors (including the principal contractor) and workers shall all take into consideration and implement the arrangements described herein throughout the course of the pre-construction and construction phases of the project.

All forms of appointment, including the main construction contract, are deemed to reflect the arrangements herein. Where arrangements described herein directly contradict the terms and conditions of appointments the latter shall take precedence unless compliance increases health and safety risk. Where this occurs the client, principal designer and principal contractor shall be notified immediately.

1.0 STANDARDS, EXPECTATIONS AND KEY PERFORMANCE INDICATORS

1.1 GENERAL STANDARDS

The works shall be designed and constructed in accordance with the requirements of the *Construction (Design & Management) Regulations 2015*, together with current British and European Standards, Codes of Practice, Building Regulations, Local and Statutory Authority requirements, bye-laws and in accordance with good building practice.

Where applicable, the works to be generally designed to comply with the requirements of:

- *The Building Regulations etc. (Amendment)(England) Regulations 2023*
- *The Building Regulations 2010*
- *The Building Act 1984*
- *The Construction (Design and Management) Regulations 2015*
- *The Workplace (Health, Safety and Welfare) Regulations 1992*
- *The Fire Safety Act 2021*
- *The Energy Performance of Buildings (England and Wales) Regulations 2012*
- *The Regulatory Reform (fire Safety) Order 2005 (Amended)*
- *The Control of Substances Hazardous to Health 2002*
- *Town and Country Planning Act 1990* and associated Acts
- *The Office Shops and the Railway Premises Act 1963*
- *The Health and Safety at Work, Etc Act 1974* (the HSW Act)
- *The Water Supply (Water Quality) Regulations 2000*
- *Gas Safety (Installation and Use) Regulations 1998*
- *IEE Wiring Regulations BS 7671*
- *Work at Height Regulations 2005*
- *The Clean Air Act 1993*
- *The Factories Act 1961*

Demolition works shall be planned and undertaken in accordance with *BS 6187:2011 Code of practice for full and partial demolition*.

For pre-let developments, where the building will be fitted-out in accordance with the occupier(s) requirements the design shall also provide:

- a. Fire safety and means of escape in accordance with Approved Document B taking into consideration the need for the building occupant to comply with the requirements of the *Regulatory Reform (Fire Safety) Order 2005*; and
- b. Safe means of access and escape for all users in accordance with the requirements of Approved Document M and the *Equality Act 2010*.

1.2 HEALTH & SAFETY EXPECTATIONS

The health and safety standards to which this project will be designed and constructed shall be in accordance with all current legislative standards or higher. In particular:

1.2.1 General Standards

All Designers and Contractors engaged on the project shall have the skills, knowledge and experience, together with the operational capability necessary to secure the health and safety of any person affected by the project.

All stakeholders in the project shall cooperate with all other stakeholders and coordinate their work with others to secure the health and safety of any person affected by the project.

Any person engaged on the project shall report immediately any design decision or construction activity likely to endanger their own health and safety or that of others, without fear of discipline or dismissal.

All information and instructions shall be issued to only those parties that need it and provided in a clear comprehensible format. The “sender” shall also ensure that the “recipient” has received and understood the message.

1.2.2 Design Risk Management (DRM)

All designers, including contractors and suppliers with design responsibilities, and temporary works designers, shall give priority to the *elimination* of risks or, where this is not reasonably practicable, reduce and control risks by proactively promoting the *General Principles of Prevention* described in Appendix 1 to HSE Guidance L153.

Principal targets for DRM:

- Eliminate or minimise risks from site hazards
- Design out or minimise risks from health hazards
- Design out or minimise risks from safety hazards
- Design-in features to reduce risk, for example, from working at height
- Simplify safe construction, maintenance and cleaning work
- Consider prefabrication to minimise high risk work
- Ensure the suitability and compatibility of separate but interacting or inter-relating designs
- Take into account the Workplace (Health, Safety and Welfare) Regulations (and Amendments)
- Provide information on significant risks associated with their design at pre-arranged stages during the project design to those who need it
- Provide relevant supporting information (for example, by ensuring that copies of minutes of all design team meetings are circulated expeditiously)
- Identify any hazards applicable to future work, including cleaning, maintenance and demolition for the Health & Safety File

Risks shall be considered in relation to:

- Workers, or anyone else who may be affected during construction;
- Maintenance contractors, including cleaners, following completion of the building;
- Those who occupy the building, including those who use it as a workplace; and
- Contractors ultimately demolishing and disposing of the structure.

Where risks cannot be eliminated designers shall give collective protective measures priority over individual protection, e.g. permanent edge protection over the use of fall restraint/arrest systems when working at height.

The design shall provide safe means of access to all workplaces, including areas intended solely for maintenance purposes, and external areas.

Mechanical and electrical installation designs shall take into consideration the recommendations made for maintenance described in BSRIA Guide *BG55/2014 Safety in Building Services*, providing risk free access and a planned means to safely replace large items of plant and equipment.

The structure shall provide sufficient support for loadings imposed for maintenance including, where applicable, temporary scaffolds, mobile elevating working platforms, routes for the movement of plant and equipment, etc.

All designers shall prepare, and continually update, site specific Design Risk Assessments and regularly issue these to all members of the design and construction teams, including the Client, Principal Contractor and Principal Designer. Refer to Section 3.2 for details of information to be provided.

All designs shall be supported with details of residual hazards from the earliest concept designs to the final record information by means of a Design Risk Assessment and notes on design drawings, including the BIM model where applicable. All designers must include details of all significant residual risks on all contract documentation and shall ensure that this information is included in the *Pre-Construction Information Pack* and ultimate *Health & Safety File*.

1.2.3 Building Functions & Operational Requirements

The development shall be designed and constructed to provide a safe and healthy environment for occupants that can be safely maintained by a competent maintenance contractor without need for specialist access equipment, training for safe means of access or special measures for the avoidance of risk from substances hazardous to health, where reasonably practicable.

Notwithstanding the requirements of the building regulations and other statutory documents, the design shall take into consideration, and eliminate risk where practicable, the following significant items:

Construction

- Risks to building users remaining in occupation throughout the construction period;
- Existing site risks such as confined spaces, dangerous structures, deleterious materials or substance, contact with live services, etc. Refer to the Pre-Construction Information for detailed information;
- Risks to, or posed by, third parties such as adjacent construction activities, airports, railways or other undertakings;
- Site wide risks, including unauthorised access, contact between pedestrians and vehicles, and hidden voids, etc;
- Risks whilst working in the ground, including, contamination, temporary works and flooding, etc;
- Structural risks such as stability of temporary works, stability of structures during erection, curing and striking, and overloading structural elements due to the storage of materials or the use of temporary access equipment, etc.
- Falls from height;
- Substances hazardous to health;
- Planned means by which plant and equipment can be installed and commissioned;
- Fire, including safe means of escape; and
- Ecological risk, including spread of contamination, effect on ground borne water, flora and fauna, noise, dust and vibration, etc.

Maintenance

- Means of access to clean gutters, windows and the building fabric, including internal surfaces;
- Means of access to maintain plant and equipment, including luminaires and fire/smoke detectors, etc;

- Confined spaces;
- Safe removal and replacement of plant and equipment;
- Safe removal and replacement of glazing;
- Overloading the building structure during maintenance, including storage of materials, plant and equipment loads, loading by temporary access equipment, etc;
- Contact with or inhalation of deleterious materials such as refrigerant or oils, etc;
- Health hazards, including Legionellosis, Hepatitis, leptospirosis, Psittacosis and Dermatitis, etc;
- Means of escape from plant areas;
- Head hazards in plant areas;
- Safe means of demolition, highlighting areas of potential risk such as structural elements containing stored energy such as pre-stressed or post-tensioned floor slabs, etc;

Occupation

- Workplace risks as described by *The Workplace (Health, Safety and Welfare) Regulations 1992*;
- Fire risks as described by *The Regulatory Reform (Fire Safety) Order 2005* (pre-let developments only); and
- Risks to disabled occupants as described by *The Equality Act 2010*.

Note: This list is indicative only and may not constitute a full list of hazards to be considered.

1.2.4 Construction Standards

All construction work, including demolition and the rectification of defects, shall be properly planned and managed by the Principal Contractor and Contractors to avoid risk to all site staff, visitors and others likely to be effected by the works.

Suitable and sufficient welfare facilities shall be provided, maintained by the Principal Contractor throughout the construction period.

Contractors (including client direct contractors), self-employed contractors and designers employed by the Principal Contractor are competent and make due regard for health and safety. Machinery and other plant is properly selected, used and maintained and the operator is competent. Material suppliers provide adequate health and safety information with their products, including details of any residual hazards to be included in the Health & Safety File.

All contractors and workers shall be informed of the risks to their health and safety arising from the environment and the construction work itself and regular specific *Awareness Training* and *Tool Box Talks* shall be undertaken. Management arrangements, including an open consultation process, shall secure coordination and cooperation between contractors in addition to general design coordination meetings, pre-start meetings and design coordination meetings to be undertaken by the Principal Contractor.

Regular site safety inspections shall be undertaken throughout the contract by a competent health and safety consultant.

1.2.5 Handover Standards

A complete Health & Safety File shall be available before practical completion. The following key health and safety documents are required to support the principal contractor's application for practical completion as a minimum:

1. Health and Safety File incorporating copies of all survey information included in the Pre-Construction Information Pack
2. Design strategies;
3. Details of any hazards that have not been eliminated through the design;
4. Key structural principles;
5. Record drawings of the building and the installed plant and equipment;
6. Building Regulation Final Certificate; and

7. All test and commissioning certificates.

Refer to Section 4.3.3 for details of all information required for handover.

1.3 KEY PERFORMANCE INDICATORS

The following specific indicators will be applied to the monitoring and review of this project:

Training and competency

Designers and contractors being appointed provide sufficient evidence of the appropriate skills, knowledge, experience and, where they are an organisation, the organisational capability to carry out the work in a way that secures health and safety. Evidence shall be provided in accordance with paragraphs 58 – 62 of HSE Guide L153 and PAS 91:2013 or equivalent during pre-qualification.

CSCS or equivalent health and safety test cards are required for all contractors to ensure the right and best people to deliver the project. Principal contractor(s) to ensure all contractors and workers are aware and know how to manage risk on a sensible basis.

Minimise impact on neighbours and local communities

Project signed up to *UK Considerate Constructor Scheme*. Ensure our projects have minimum impact on neighbours and the environment. Respect people, have good welfare and safety standards on and adjacent to the site. Incorporate CCS or equivalent requirements in tender documents.

Proactive and sensible risk management of all health and safety risks

Project benefits from Global Risk Register and/or Design Risk Assessments, inclusive of design detailing key risks for the project team to manage. Ensure that health and safety is incorporated into project risk registers and where no risk registers exist these are created to assist the client in understanding how key project risks will be sensibly managed. We will request and track project risk registers and request incorporation of health and safety into these.

No incidents

Zero Accident Incident Rate. Minimise potential injuries and ill health during construction, maintenance and demolition. Minimise project downtime and reactive management time dealing with enforcers, the press and other stakeholders. Agree key objectives with contractors in pre-tender and construction phase plans and instigate reporting schedule.

Respect for people

Consideration to be made of occupational health and working with each other to improve the management of occupational health during design, construction, maintenance and demolition work.

Promote respect for people who work on our projects so they are well motivated, productive, trained, treated fairly and enjoy their work.

Promote the management of occupational health via addressing health issues in contract documentation.

Statutory compliance

Eliminate prosecutions and enforcement notices from HSE. Compliance is the minimum standard and report all enforcement notices on projects.

2.0 ROLES & RESPONSIBILITIES

2.1 GENERAL ROLES & RESPONSIBILITIES

The roles and responsibilities of all stakeholders shall generally be those specifically described by CDM2015, the supporting HSE Guidance L153 and respective CITB Guidance Notes:

CDM Duty Holders – Who are they?	Summary of role/main duties
<p>Clients</p> <p>Organisations or individuals for whom a construction project is carried out.</p>	<p>Make suitable arrangements for managing a project, including making sure that:</p> <ul style="list-style-type: none"> • other duty holders are appointed • sufficient time and resources are allocated <p>Clients must also make sure that:</p> <ul style="list-style-type: none"> • relevant information is prepared and provided to other duty holders • the principal designer and principal contractor carry out their duties • welfare facilities are provided
<p>Principal Designer</p> <p>Designers appointed by the client in projects involving more than one contractor. They can be an organisation or an individual with sufficient knowledge, experience and ability to carry out the role.</p>	<p>Plan, manage, monitor and co-ordinate health and safety in the pre-construction phase of a project.</p> <p>This includes:</p> <ul style="list-style-type: none"> • identifying, eliminating or controlling foreseeable risks • ensuring designers carry out their duties <p>Prepare and provide relevant information to other duty holders.</p> <p>Provide relevant information to the principal contractor to help them plan, manage, monitor and co-ordinate health and safety in the construction phase.</p>
<p>Designers</p> <p>Those who, as part of a business, prepare or modify designs for a building or product, or prepare or modify designs to systems relating to construction work.</p>	<p>When preparing or modifying designs, eliminate, reduce or control foreseeable risks that may arise during:</p> <ul style="list-style-type: none"> • construction and • the maintenance and use of a building once it is built <p>Provide information to other members of the project team to help them fulfil their duties.</p>
<p>Principal Contractor</p> <p>Contractors appointed by the client to co-ordinate the construction phase of a project where it involves more than one contractor.</p>	<p>Plan, manage, monitor and co-ordinate health and safety in the construction phase of a project. This includes:</p> <ul style="list-style-type: none"> • liaising with the client and principal designer • preparing the construction phase plan • organising co-operation between contractors and co-ordinating their work. <p>Ensure that:</p> <ul style="list-style-type: none"> • suitable site inductions are provided • reasonable steps are taken to prevent unauthorised access • workers are consulted and engaged in securing their health and safety • welfare facilities are provided.
<p>Contractors</p> <p>Those who do the actual construction work. They can be either an individual or a company.</p>	<p>Plan, manage and monitor construction work under their control so that it is carried out without risks to health and safety.</p> <p>For projects involving more than one contractor, co-ordinate their activities with others in the project team – in particular, comply with directions given to them by the principal designer or principal contractor.</p> <p>For single-contractor projects, prepare a construction phase plan.</p>

Workers

The people who work for or under the control of contractors on a construction site.

They must:

- be consulted about matters which affect their health, safety and welfare
- take care of their own health and safety and that of others who may be affected by their actions
- report anything they see which is likely to endanger either their own or others' health and safety
- co-operate with their employer, fellow workers, contractors and other duty holders.

2.2 PROJECT SPECIFIC ROLES & RESPONSIBILITIES

2.2.1 Client

Coordinating with the CPM/EA, Principal Designer and Principal Contractor.

The Client shall comply with the duties described in Part 2 of the Regulations, together with the General Duties described in Regulation 8.

The Client shall provide all available pre-construction information and undertake any additional investigations as may be necessary to identify existing risks.

2.2.2 CDM Advisor to Client

Building & Workplace Solutions Ltd have been appointed as the Principal Designer under CDM2015 and will also act for and on behalf of the Client discharging the client's duties under the regulations where applicable, including

- 1 Client appointment of designers and contractors;
- 2 Preparation and issue of the Client Brief and Management Arrangements;
- 3 Making suitable arrangements for managing health and safety during the pre-construction and construction phases of the project, including allocation of sufficient time and other resources;
- 4 Making suitable arrangements to ensure that:
 - a. The construction work can be carried out, so far as reasonably practicable, without risks to the health and safety of any person affected by the project;
 - b. The facilities required by Schedule 2 of the Regulations are provided in respect of any person carrying out construction work. [Regulation 4(2)];
- 5 Ensuring that the management arrangements are maintained and monitored throughout the project [Regulation 4(4)], including compliance of the Principal Designer duties under Regulations 11 and 12, and the Principal Contractor duties under Regulations 12 to 14;
- 6 Pre-construction information provided by the Client is issued as soon as practicable to every designer and contractor appointed, or being considered for appointment, to the project [Regulation 4(4)];
- 7 The suitability of the *Construction Phase Plan* prepared by the Principal Contractor and the provision of suitable welfare accommodation before commencement of the construction phase on site; and
- 8 The preparation and completeness of the Health and Safety File in accordance with Regulation 12(5) during the pre-construction and construction phases and is available for inspection by anyone who may need it [Regulation 4(5)].

2.2.3 Client Project Manager/Employer's Agent (CPM/EA)

Coordinating directly with the Client, Designers, Principal Designer, and Principal Contractor, the CPM/EA shall also act as the link between any ultimate building user (and their designers) and the Client, Designers, Principal Designer, and Principal Contractor.

The Project Manager/Employer's Agent is responsible for coordinating with the CDM Advisor to the Client, Principal Designer and Principal Contractor with respect to maintenance of the *CDM Management Arrangements*.

Where design information is prepared or altered by the CPM/EA, such as preparation of Value Engineering lists, the CPM/EA is a "Designer" and shall comply with duties under Regulations 8, 9 and 10, including the requirement for Design Risk Assessment.

2.2.4 Designers

Coordinating directly with the Client, CPM/EA, Designers, Principal Designer, contractors with design responsibilities and the Principal Contractor.

Designers, including consultant designers, contractors with design responsibilities, temporary works designers, and the like, shall comply with the requirements of Regulations 8 and 9.

Health and safety aspects of the design shall be coordinated through the Principal Designer, including *Design Strategies*, conditional surveys and *Design Risk Assessments*.

The Architect will be novated to the Principal Contractor for the construction phase of the project and shall act as the Lead Designer coordinating the designs of the various designers, including sub-contractors with design responsibilities.

2.2.4 Principal Designer (PD)

BWS are appointed as Principal Designer for the Pre-Construction Period only under the Construction (Design and Management) Regulations 2015 and shall coordinate directly with the Client, CPM/EA, Designers and Principal Contractor.

The Principal Designer is responsible for coordinating the pre-construction design, including any design undertaken during the construction phase, in accordance with Regulations 8 and 11.

The Principal Designer shall prepare and maintain the *Health & Safety File* in accordance with Appendix 4 of HSE Guidance L153.

2.2.5 Advisor to Principal Designer

The Advisor to the Principal Designer is responsible for assisting the PD to coordinate the pre-construction design, including any design undertaken during the construction phase, in accordance with Regulations 8 and 11, including preparation of the Health & Safety File in accordance with Appendix 4 of HSE Guidance L153.

2.2.6 Principal Contractor (PC)

The Principal Contractor shall coordinate directly with the Client, CPM/EA and Principal Designer, together with Contractors, Designers and Workers.

The Principal Contractor is responsible for organising and coordinating the works during the construction phase so that it achieves at least the standards described in this document with respect to health and safety. The Principal Contractor shall plan, monitor and coordinate design and construction activities taking into consideration the *General Principles of Prevention*.

The Principal Contractor shall comply with The General Duties imposed under Regulation 8, together with the specific duties under Regulations 13 and 14, and the general requirements for all construction sites described in Part 4 of HSE Guidance L153.

The Principal Contractor shall coordinate the duties of contractors to ensure their compliance with Regulation 15.

The Principal Contractor is responsible for coordinating the design throughout the Construction Phase with the Principal Designer and CPM/EA, including chairing periodic Design Team Meetings. The Principal Contractor is therefore a "DESIGNER" under the contract and shall comply with the requirements of Regulations 8 and 9, including the requirement for Design Risk Assessments were they actively influence the design, e.g. through Value Engineering, programme changes, or requests for variations, etc.

The Principal Contractor is responsible for checking the competence and resource of any Designer or Contractor appointed by them, including Novated Designers.

The Principal Contractor shall ensure that all persons undertaking design and construction for the project are issued all necessary information regarding hazards and management requirements, including the requirements contained in this document, and shall undertake Inductions for anyone accessing site, including the Client, Designers and the Principal Designer.

The Principal Contractor shall collect and issue all information reasonably requested by the Principal Designer for completion of the Health & Safety File and is also responsible for providing comprehensive project specific Operating and Maintenance Manuals from contractors and suppliers and providing this to the Client in the agreed format before Practical Completion. Refer to the *Handover Document Specification* within the Pre-Construction Information Pack for further guidance.

2.2.7 Contractors

Coordinating with the Principal Contractor.

Contractors shall comply with the General Duties under Regulation 8 and the requirements of Regulation 15.

Contractors shall comply with all instructions given by the Principal Contractor, including Site Rules.

Where the contractor prepares a design as part of their appointment they shall also comply with the requirements of a Designer as outlined in 2.2.4 above. Contractors with design responsibilities shall also provide comprehensive project specific operating and maintenance information to the Principal Contractor. Refer to the Handover Document Specification within the Pre-Construction Information Pack for further guidance.

2.2.8 Workers

Coordinating with the Principal Contractor.

Workers, including those who are self-employed, shall coordinate directly with their employing Contractor.

All workers shall comply with the General Duties imposed under Regulation 8, together with specific guidance given in CITB Industry Guidance CDM15/6.

3.0.DESIGN INFORMATION

Designers, including temporary works designers and sub-contractors with design responsibilities, shall take account of the general principles of prevention and shall eliminate, so far as reasonably practicable, foreseeable risk to health and safety in accordance with Regulation 9 and where it is not possible to eliminate specific risk provide information about those risks to the Principal Designer in accordance with Regulation 9(3)(b).

Designers shall provide sufficient information with their design in accordance with Regulation 9(4).

Designers shall provide details of the designed health and safety strategies for incorporation within the Pre-Construction Information and Health & Safety File, together with a continually updated Design Risk Assessment. Details of significant risks shall also be shown on drawings.

Where designs are prepared or modified outside Great Britain the client will include within the lead designer's appointment a coordinating role to ensure compliance with Regulation 9. Refer to the Pre-Construction Information Section 1.8 for details.

Design information shall include:

3.1 DESIGN STRATEGY STATEMENTS

Design strategy statements shall be provided by consultants for inclusion in the Pre-Construction Information Pack and Health & Safety File in order to accurately define the design intent to the principal contractor, designers and building occupants. Information shall include:

Key Structural Principles

The Structural Engineer shall provide a statement on the Key Structural Design Principles and safe working loads for floors and roofs, particularly where these may preclude placing scaffold or heavy machinery there. This statement should include details of the loading criteria to which the structure was designed and how the building is braced, e.g. do the floors support basement walls, and sources of substantial stored energy, e.g. post tensioned or pre-stressed elements. The statement should also include designed structural deflections.

Floor and roof plans coloured to show different loadings are by far the best way of showing this information, especially where there is different criteria on the same floor level.

Highways & Drainage

The Civil/Structural Engineer shall provide details of the design decisions taken with respect to the drainage and vehicular movements around the site within a Highways & Drainage Design Statement, to include:

- Vehicle tracking showing how vehicles enter and exit site in a forward gear;
- How pedestrians and vehicles are segregated, especially where large commercial vehicles are reversing, e.g. in the vicinity of loading doors and escape routes;
- Loading criteria for the hard paved areas, especially taking into consideration where cranes can be positioned to remove large items of plant from roofs taking

into consideration the possible need to site cranes over surface water attenuation tanks, or similar.

- Drainage statement providing details of the design decisions under SUDS or, where SUDS is not applicable, designed maximum flow rates and areas likely to become flooded when this is exceeded.

Incoming Mains Services

The services consultant shall provide a Report on Existing Mains Services on and adjacent to the site, together with a Co-ordinated Services Drawing (included on the topographical survey) showing their existing and proposed locations

Safe Maintenance Access Strategy

Anticipated means of safe access for the cleaning and maintenance of the building fabric and associated services installations, including windows (internal and external), roof access, gutter access, access to smoke detectors and light fittings, and access routes around internal and external plant areas.

Designed Fire Strategy

Designed fire strategy for use by the building occupant to prepare a Fire Risk Assessment under the Regulatory Reform (Fire Safety) Order 2005, including periods of fire resistance, spread of flame, unprotected areas, escape distances, fire separation/compartmentation, fire detection and alarm, disabled means of escape, lifts, and integration of security system with fire alarm.

Plant Replacement Strategy

Anticipated means by which large items of plant and equipment will be moved into position or replaced, including maximum weight of each piece of plant/equipment, the route that plant/equipment will take when being removed and the location and size of lifting equipment necessary.

Disable Access Strategy

Part M compliance statement and, where the building is designed for a specific user, any additional provision under the Equality Act 2010 such as reasonable adjustments made to existing buildings, the provision of induction loops, etc.

3.2 DESIGN RISK ASSESSMENTS (DRA'S)

Designers must consider the hazards inherent within their design, eliminate and reduce associated risks resulting from their designs and continually monitor their design work from concept stage, through scheme design and on to the detailed design stage, including ongoing detailed design carried out during the construction phase.

“Designers are required to avoid foreseeable risks ‘so far as is reasonably practicable, taking due account of other relevant design considerations’. The greater the risk, the greater the weight that must be given to eliminating or reducing it.”

Designers are therefore required to continually develop and issue to the Principal Designer a list of significant hazards and co-ordinate means by which risks are eliminated or minimised and controlled based on the “hierarchy of risk control principles” described in HSG65 Successful health and safety management as follows.

Remember, the important thing is the identification of significant hazards (elements likely to cause harm) and how these will be controlled during the design, by whom and by when. The level of risk (likelihood and severity) only allows the team to prioritise high and medium risk, whereas the team should prioritise all significant risks.

This information must be continually updated and circulated within the team.

Eliminate If you can eliminate an identified hazard, by taking a different design decision, you must do this:

- (1) If it is a mandatory requirement or a specific obligation; but otherwise
- (2) so far as is reasonably practicable.

For example, placing an air handling unit at ground level instead of at height, on a wall, eliminates the hazard of ‘working at height’.

However, you will need to consider other hazards that might be introduced (obstructions, tripping) or risks that remain as a consequence of this action.

If the identified hazard cannot be eliminated:

Reduce Designers must reduce the remaining risks associated with the hazard, so far as is reasonably practicable.

For example, hard landscaping is designed such that there is space around the foot of the wall, and a level surface with access, for a scissor lift to be used to install and maintain the air handling unit, as ladders are not appropriate in this instance.

Alternatively, if it was in fact reasonably practicable to install the unit at ground level, it is likely that there would be some residual risks associated with that placement, such as tripping. These risks must also be reduced.

The ACoP recognises that the weight given to a particular risk will be proportionate to its assessed likelihood, severity, the number of people affected, and frequency or duration of the exposure. This will be a professional judgement but guided by relevant good practice.

When reducing risks, there is a hierarchy to be observed, which is known as the ‘general principles of prevention’ (these originate from the Management of Health and Safety at Work Regulations 1999).

Provide collective protective measures before those that only benefit individuals.	An example of this is to provide edge protection before adopting fall restraint or arrest systems.
Assume the use of PPE as a last resort.	No one likes wearing PPE: it gets lost, worn out, discarded. It should always be the last assumption or choice (although it will be the responsibility of those in charge of the work activity to determine exactly what is required).

And then, if significant risks remain:

Inform Provide information on these risks to the contractor, or those using or maintaining the structure.

For example, maintenance strategy statement to go in the health and safety file. Proposed access discussed with the client.

Control Providing the design does not change, and no other influence comes to bear (such as a change to the landscaping), then the control of the risks on site during construction or maintenance are the responsibilities of those undertaking the work.

3.3 INFORMATION ON DRAWINGS

Details of significant risks shall be shown on drawings, including the BIM model. Drawings should show the location of the hazard and provide a brief description. The use of Red/Amber/Green labels is preferable where RAG lists are prepared by the Principal Designer.



As built or Record Drawings should be updated to include only details of residual risks affecting maintenance and occupancy.

3.4 INFORMATION FOR HEALTH & SAFETY FILE

Designers shall provide sufficient information with their design in order that those carrying out future maintenance work can plan and undertake their works in a safe manner.

These requirements are based on the overriding statutory requirement of Regulation 6 of the Health & Safety at Work, Etc. Act 1974:

Regulation 6 - General duties of manufacturers etc. as regards articles and substances for use at work.

It shall be the duty of any person who designs, manufactures, imports or supplies any article for use at work or any article of fairground equipment—

- (a) to ensure, so far as is reasonably practicable, that the article is so designed and constructed that it will be safe and without risks to health at all times when it is being set, used, cleaned or maintained by a person at work;*
- (b) to carry out or arrange for the carrying out of such testing and examination as may be necessary for the performance of the duty imposed on him by the preceding paragraph;*
- (c) to take such steps as are necessary to secure that persons supplied by that person with the article are provided with adequate information about the use for which the article is designed or has been tested and about any conditions necessary to ensure that it will be safe and without risks to health at all such times as are mentioned in paragraph (a) above and when it is being dismantled or disposed of.*

Designers shall revisit information provided under 3.1, 3.2 and 3.3 above and update to “as-built” status for incorporation within the Health & Safety File by the Principal Designer. In addition, Designers shall provide:

“As-Built” or “Record” drawings A3 pdf copies of all drawings marked “AS-Built” or “Record Drawing” plus dwg copies of the same. Drawings should include the Site Plan, Floor Plans, Roof Plan, General Sections, Elevations, Stair Sections, Detailed Sections, Partition Details, Fire Plans and Construction Details.

Schedules

A3 pdf copies of all drawings marked “AS-Built” or “Record Drawing” plus dwg copies of Finishes Schedule, Door Schedule, Ironmongery Schedule, Sanitaryware Schedule and Window Schedule.

4.0 DESIGN COORDINATION

All stakeholders with a duty or function under CDM 2015 shall cooperate with any other person working on or in relation to a project in accordance with Regulation 8(4).

Every person involved in the project on whom a duty is placed by the Regulations shall:

- Seek the co-operation of any other person concerned in any project involving construction work at the same or an adjoining site so far as is necessary to enable himself to perform any duty or function under these Regulations; and
- Co-operate with any other person concerned in any project involving construction work at the same or an adjoining site so far as is necessary to enable that person to perform any duty or function under these Regulations.
- Every person concerned in a project who is working under the control of another person shall report to that person anything which he is aware is likely to endanger the health or safety of themselves or others.

All persons involved in the project on whom a duty is placed by the Regulations shall co-ordinate their activities with one another in a manner which ensures, so far as is reasonably practicable, the health and safety of persons carrying out the construction work and affected by the construction work.

Designers, including the Principal Designer and Principal Contractor, must ensure that relevant information flows between other members of the design and construction teams and that, where the control of risks necessitates input from other parties, the relevant parties are aware of their identified hazards and actively participate in the elimination or control of associated risks.

Designers shall therefore comply with the requirement to prepare and continually update a *Design Risk Assessment* for each Design Team Meeting. The Principal Designer will then continually update a co-ordinated Global Risk Register.

The process of hazard identification shall be continued throughout the construction period to include assessment of design variations instructed under the contract. Designers shall therefore include within their monthly progress reports an updated Design Risk Assessment.

Design co-ordination shall be undertaken via:

4.1 COMMUNICATION ROUTES

All parties with a duty under CDM2015 shall cooperate with any other person working on or in relation to the project as necessary to enable that person to fulfil their own duties.

Communication routes for design coordination shall broadly follow the Project Specific Roles and Responsibilities – Refer to Section 2.2 above. However,

Pre-Construction Phase	Designers shall coordinate directly with each other and include the Principal Designer in any correspondence effecting health and safety.
Construction Phase	Designers shall coordinate directly with each other and the Principal Contractor. The Principal Contractor shall coordinate directly with the Principal Designer.

4.2 DESIGN COORDINATION MEETINGS

- Client Project Meetings** Chaired by the CPM/EA to set and review policy and strategy, resolve headline issues, review progress and address problems. Develop and finalise Final Project Brief and Project Strategies, including programme.

- Pre-Const'n Design Meetings** Chaired by the Lead Designer to allow designers to co-ordinate and develop The Brief, Concept Design, Detailed Design, cost and programme, including design risk management strategies.

- Third Party Liaison Meetings** Chaired by the Lead Designer to develop the end users' requirements, risks to third parties during the construction phase, third party management requirements, and obtain design information from the end users' design team for inclusion in The Brief.

- Pre-Const'n Design Workshops** Chaired by the Lead-Designer to allow the designers, contractors and specialist sub-contractors to meet and focus on particular aspects of the design.

- Const'n Phase Design Workshops** Chaired by the Principal Contractor to co-ordinate specialist sub-contract packages within overall scheme, including production drawings, specifications, design risk assessments, access/attendance and handover procedures.

- Progress Meetings** Chaired by the CPM/EA to report on construction progress, cost control and outstanding design development.

	Stage 3 – Developed Design	Stage 4 – Technical Design	Stage 5 - Construction
Client Project Meetings	Monthly	Monthly	As called by Client
Pre-Const'n Design Meeting	Weekly	Weekly	-
Pre-Const'n Design Workshops	As called by Lead Designer	As called by Lead Designer	-
Third Party Liaison Meetings	Monthly	Monthly	Weekly
Const'n Phase Design Workshops	-	-	As called by Principal Contractor
Progress Meetings	-	-	Monthly

Minutes shall be taken by the Chair and distributed to the Client, Project Manager, Principal Designer, Principal Contractor and other relevant members of the team via email.

Designers and the Principal Contractors are responsible for issuing updated Design Risk Assessments to the Principal Designer with each meeting report.

4.3 EXCHANGE OF DESIGN INFORMATION

Post-contract design development shall be co-ordinated by the Principal Contractor through regular design team meetings to include input from design consultants, temporary works designers, sub-contractors with design responsibilities and suppliers.

The Principal Contractor shall ensure that design information is issued to Designers and the Principal Designer for information/comment.

All information shall be exchanged via traditional post and email services.

4.4 BIM

Not applicable under this contract.

4.5 CHANGE/VARIATION CONTROL

All Instructions/Variations/Change Orders shall incorporate a CDM Design Risk Assessment and be copied by the CPM/EA to the Principal Designer for comment where necessary.

5.0 SAFE SYSTEMS OF WORK

5.1 GENERAL DUTIES

The Principal Contractor is responsible for managing safe systems of work for all contractors.

The Principal Contractor shall coordinate the design and plan, manage and monitor the construction phase in accordance with the general duties outlined in section 2.2.6 above.

5.2 CONSTRUCTION RISK ASSESSMENTS AND METHOD STATEMENTS (RAMS)

Where there is foreseeable risk, no work shall proceed until suitable and sufficient RAMS have been submitted and approved by the Principal Contractor, who shall ensure that the information contained within the RAMS is made known to all people who may be affected by the risk and ensure that adequate resources are assigned to manage those risks identified.

The Principal Contractor is responsible for passing any relevant information regarding the design to the Principal Designer and, where applicable, advising and co-ordinating with the Principal Designer on matters significantly affecting Design Risk Management and information for the Health & Safety File.

5.3 PERMIT TO WORK

The Principal Contractor shall issue their own permit to work when working on the following:

- General works, including demolition, alterations to plant or machinery where hazards may arise, works on asbestos materials, roof work, commissioning/de-commissioning, and excavations to avoid underground services;
- Hot work
- Working in confined spaces
- Works on HV electrical equipment
- Works within Public Highways – 1 Adoptable Drainage – S.104 Water Industry Act 1991 2. Proposed New Public Highway Works – S.38 Highways Act 1980 3. Works Within Existing Public Highway S.278 Highways Act 1980.

All operatives carrying out such work must hold in their possession a copy of any permit or authorisation pertaining to that work.

5.4 AVOIDING THE OCCURRENCE OF FIRE

The *Construction Phase Plan* shall include a detailed *Fire Risk Assessment* and *Fire Safety Plan* in accordance with the recommendations of HSE Guide HSG168 *Fire Safety in Construction Work* and *The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation: Fire Prevention on Construction Sites: January 2000*.

The Fire Safety Plan shall include designated escape routes and muster points to deal with fire and personal injury and the arrangements to prevent fire arising and spreading during the construction works. These procedures shall take account of other occupants on the same floor and elsewhere in the building, whether or not defined by the Client.

General fire precautions

- Limit the amount of combustible materials present at workstations to what is needed for a single shift and return unused material to external stores when the work is finished.
- Avoid stockpiling flammable materials within the building.
- Continually remove flammable waste, including wood shavings and dust, so far as is practicable.
- Works contractors to remove rubbish daily to skips provided.
- Contaminated rags to be discharged into a metal dustbin.
- Site skips to be located at least 3.0m away from the building fabric whenever practicable.
- Use flame retardant protection only - those complying with the Loss Prevention Council Standard LPS1207.
- Do not protect any finishes in escape stairs.

Reducing Ignition Sources

- Implement a 'no smoking' policy on site.
- Free standing lighting columns to be secured from overturning where possible.
- Temporary electrical systems to comply with BS 7671:2008.
- No site fires.

General Fire Precautions

- Do not stockpile flammable materials or waste adjacent means of escape.
- Use 'Permit to Work' systems for all work generating sparks, heat or flame.
- Provide portable fire-fighting equipment with PTW.
- Maintain all escape routes clear of obstruction.
- Do not wedge open fire doors.
- Sign all fire exits and include Fire Plan in induction.

Fire-fighting equipment

Fire-fighting equipment shall be provided thus: -

At least one fire-fighting station per floor consisting of fire action notice, air horn, 9 litre water or foam extinguisher and 1.1Kg CO2 extinguisher including one station located at the main site entrance and one portable station for hot works.

- Maintain emergency lighting to escape staircases throughout contract.
- Maintain site personnel records each day.

Temporary Accommodation Units (TAU's)

- Site all TAU's at least 6.0m away from building whenever practicable.

Sleeping Accommodation

- No sleeping accommodation shall be permitted on site.

5.5 COMMISSIONING ARRANGEMENTS

The Principal Contractor shall prepare a Commissionability Report and Commissioning Programme highlighting areas where the client's retained services will be temporarily isolated. No commissioning shall take place until the CA has confirmed the client's acceptance of these proposals.

The Principal Contractor's attention is drawn to the Client's requirements for a permit to work for commissioning as outlined in Section 5.3 above.

5.6 EMERGENCY PROCEDURES

The CPHSP shall include adequate emergency procedures to control likely incidents, including fire, spillage and reportable incidents.

The Principal Contractor shall establish and give effect, where necessary, to appropriate procedures to be followed in the event of serious and imminent danger to persons at work in accordance with regulation 8 of the Management of Health and Safety at Work Regulations 1999.

The Principal Contractor remains responsible for reporting incidents or dangerous occurrences in accordance with the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013. The Principal Contractor shall immediately notify the Project Manager/EA and the Principal Designer for accidents or incidents resulting in:

- the death of any person;
- specified injuries to workers described in regulation 4;
- non-fatal accidents requiring immediate hospital treatment to non-workers; and
- dangerous occurrences.

Records of injuries resulting in over three-day incapacitation must be entered into an Accident Book under the Social Security (Claims and Payments) Regulations 1979 and reported to the Project Manager/EA and the Principal Designer.

5.7 TRAINING AND TOOL BOX TALKS

The Principal Contractor shall ensure that all Workers are provided with suitable health and safety induction, information and training.

The Principal Contractor shall provide workers, including the self-employed, under their control with any information needed to carry out the construction work safely and without risk to health and safety.

The Principal Contractor shall undertake inductions and job specific training (Tool Box Talks) for all Workers, site visitors, the Client and Designers to include site rules, site access arrangements, emergency procedures, information from the client about any particular risks associated with the project (including information about existing structures where these are to be demolished or structurally altered), and significant risks associated with the design.

The Principal Contractor shall maintain records of all training.

In addition to training, the Principal Contractor shall maintain statutory notices and site specific safety notices, including a Daily Hazard Board.

6.0.MONITORING

The Management Arrangements described above include specific indicators that shall be continually monitored by the Client or the CDM Advisor to Client, where appointed:

6.1 PRE-CONSTRUCTION PHASE

- Establishment of appropriate Competence Assessment for appointments against the core criteria described in Regulation 8 and, where the scope and complexity of the project justifies, PAS 91:2013 *Construction Related Procurement – Prequalification Questionnaires*;
- Preparation and continued maintenance of project specific Design Risk Assessments by all designers, including residual construction, occupation and maintenance risks;
- Preparation by the respective designers of all necessary Design Strategy Statements for inclusion in the Pre-Construction Information Pack;
- Preparation and maintenance of the Global Design Risk Register by the Principal Designer;
- Minutes of Design Coordination Meetings;
- Completion of the Pre-Construction Information Pack prepared by the Client, or CDM Advisor to Client on behalf of the Client, under Regulation 4(4) in accordance with Appendix 2 of the HSE Guidance L153 Managing health and safety in construction, including:
 - Client Brief and Management Arrangements
 - Project Information;
 - Design Principles and Design Strategies;
 - Global Risk Register and/or Design Risk Assessments;
 - Handover Document Specification; and
- Acceptance by Client and Principal Designer of elements offered by the Principal Contractor under Value Engineering

6.2 CONSTRUCTION PHASE

- Issue of the *Construction Phase Health & Safety Plan* prepared by the Principal Contractor in accordance with Regulation 23 and provision of suitable and sufficient welfare accommodation prior to commencement on site. To include:
 - Site Logistics Plan; and
 - Fire Risk Assessment and Fire Plan
- Regular update of the Construction Phase Plan and collection of associated records, including competence assessments, Inductions, Tool Box Talks; Construction RAMS, etc;
- Minutes of Design Coordination Meetings;
- Issue of Design Risks Assessments from all Designers, including specialist sub-contractors with design responsibility;
- Temporary works designs have been coordinated with design consultants;
- Minutes of Site Progress Meetings to include:
 - Reports of regular Site Safety Inspections by the Principal Contractor;
 - Continuation of Project Register of Designers;

- Schedule of Variations/Change Orders;
- Details of any additional residual hazards established by the Principal Contractor, Contractors or Workers;
- Provision of information for the Health & Safety File;
- Principal Designer has been provided with copies of all variations/instructions and has coordinated relevant risks to health and safety;
- Development by the Principal Contractor of a coherent Commissioning and Handover Plan; and
- Information issued for inclusion in the Health & Safety File.

6.3 HANDOVER PHASE

Delivery of the Health & Safety File.