APS Practice Note
Design Risk Management

association for project safety

Design Risk Management – DRM - is the process of taking a project from a client's briefing statement through all design development stages and passing it onto a suitable implementer or contractor to be built. It involves considering all the risks that can influence project development - from the catastrophic to the normal or routine. However, there are multiple people acting as designers throughout this process and although Construction Design Management (CDM) risks primarily relate to health and safety issues they need to be considered with a myriad of other risk factors, such as, environmental, financial and regulatory compliance, etc.

Introduction

Design Risk Management – DRM - is the process of taking a project from a client's briefing statement through all design development stages and passing it onto a suitable implementer or contractor to be built. It involves considering all the risks that can influence project development. - from the catastrophic to the normal or routine. However, there are multiple people acting as designers throughout this process and although Construction Design Management (CDM) risks primarily relate to health and safety issues they need to be considered with a myriad of other risk factors, such as, environmental, financial and regulatory compliance, etc.

The consideration of health and safety risk is critical, especially during the actual construction process and should not be over-shadowed by more strategic processes that constitute the design stages. This differentiation between 'construction risk' and 'design risk' is at the heart of many disputes in the industry, with each side having great difficulty understanding the other's position. For example, normal routine construction risks, however injurious, are not generally necessary for consideration by conceptual design teams during the early design stages. This pre-construction team must also agree the 'significant CDM issues" for any specific project rather than considering 'all risks' related to their project and review this at each work-stage gateway in case their priority rises.

Of course, where there is risk there can also be benefit to the client, the project team, other stakeholders, society at large and even the economy of the country, so the balance of risk and benefit needs to be carefully judged by the project team throughout the project and usually in an incremental way. It is of no use to try to manage on-site routine health and safety issues until the big picture issues are resolved at earlier stages. Similarly, early design stage decisions need to recognise the practical application in the future to such pragmatic issues as window cleaning or plant replacement. Hence, the Royal Institute of British Architects (RIBA) has developed a Plan of Work for the UK industry which shows the progressive development of projects from inception to completion and eventual use. The Plan of Work enables whole design teams to identify and consider individual 'significant issues' at appropriate times and with a degree of proportionality to the rest of the project and legislative requirements.

To facilitate and demonstrate this progressive evolution of the design risk management process of projects, the use of just a narrative and numerical spreadsheet has proven to be inadequate and unclear. The use of images, drawings, photographs and sketches are essential to improve everyone's understanding and consideration of the multi-factorial significant issues on architectural projects with their complicated nature. Hence, RIBA has developed this DRM Toolkit to rationalise the identification, discussion, mitigation and eventual recording of decisions in what constitutes a project storyboard of 'significant issues' in the context of the entire project. This is both a working tool for all stakeholders, regardless of risk or CDM expertise, and also constitutes a Golden Thread to help manage key future issues such as fire safety management or plant replacement strategy.

References throughout refer to the DRM Toolkit, an example of this is attached featuring multiple projects.

DRM Strategy Brief Stages 0–1

The concept of developing a strategic approach to CDM is not particularly new. APS Practice Note 6/13 Improving Construction Health & Safety – Shifting the focus proposed that the CDM-coordinator duty-holder's successor should lead the pre-construction team in developing a project strategy to ensure strategic risks are identified and understood before the start of significant design work.

The Construction Design Management Regulations 2015 (CDM2015) makes the client accountable for making suitable arrangements for managing the project so that health, safety and welfare are secured. HSE L153 Guidance (cl 32)[1] suggests that 'clients could prepare a "clients brief" as a way of setting out these arrangements.'

The revised RIBA Plan of Work 2020 Overview[2] identifies the requirement for a health and safety strategy to be included within Stage 0 – strategic definition:

> *'The Health and Safety Strategy needs to be considered early on in the project because it is key to securing the safe construction, occupation, maintenance and future re-use or demolition of the project. The client's role is fundamental to this, to establish and maintain a health and safety-conscious approach to delivery of the project from the outset. The Health and Safety Strategy should set clear health and safety objectives.'*

The CDM strategy brief has evolved as an effective means of establishing the CDM priorities for a project, involving the client, key designers, and other influential stakeholders. One of the challenges facing designers when considering how to accommodate the requirements of CDM in the design process is to know what to address as 'significant' and what can be disregarded or deferred until later in the delivery of the scheme. The HSE has made it clear that unnecessary paperwork is an impediment to delivering safe projects.

[1] *HSE - L153 Guidance, clause 32 - Construction (Design and Management) Regulations 2015 (hse.gov.uk)*
[2] *RIBA Plan of Work 2020 Overview - RIBA Plan of Work (architecture.com)*

HSE L153 Clause 102 states:

'102 Principal designers must ensure, as far as reasonably practicable, that foreseeable risks to health and safety are identified. In practice, this will involve the principal designer working with other designers involved with the project. The risks that should be identified are the significant ones and which are likely to arise:

(a) while carrying out construction work; or

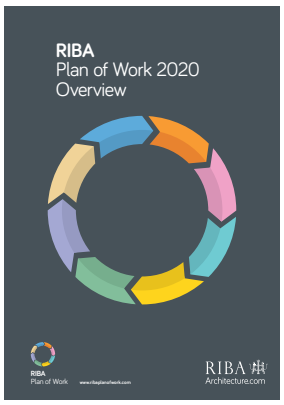
(b) during maintenance, cleaning or using the building as a workplace once it is built.

Identifying insignificant risks is not an effective way of alerting other duty holders to the important design issues they need to know about. Designers should be able to demonstrate they have addressed only the significant risks.'

The development of a CDM strategy brief (CDM 1 in DRM Toolkit) is not simply an exercise in producing another piece of bureaucracy. It requires the client and principal designer to lead a collaborative process with all key stakeholders to explore, debate and agree on the prominent issues that will need to be addressed and resolved as the design progresses through its various stages.

Carried out diligently, this approach can help to provide clarity for the whole team, ensure that the client is able to oversee the management arrangements throughout the life of the project and enable designers to focus on their main roles without fearing that 'we might have missed something'.

See page 4, for an example of the timeline.



DRM at Pre-Contract Design Stages 2–4

Designers can start to assimilate the available site and project information once the brief, client project team arrangements, appointments, and resources (ie. fees and time) are agreed.

The first big hurdle, in all UK jurisdictions, is town planning approval, but before applications are made a considerable amount of research and analysis needs to be carried out. This requires a controlled and tracked process of collating all information about the site, existing buildings and the local environment (including historical information).

The principal designer needs to collate this information (CDM2 survey tracker) but the whole team needs to be engaged to suggest surveys - both desktop or intrusive - as well as other investigations that will help inform the concept design development (RIBA Plan of Work 2020 -Stage 2).[3]

Inevitably, this can be a long process. Design proposals often need to progress in advance of all this information coming together. The implied understanding is that site information might require redesign or changes at later stages. For example, site contamination of asbestos may mean additional unexpected removal costs; underground utilities may need expensive diversions or a revised building footprint shape, and soft spots may require additional structural design. All these multi-factorial issues require design risk and benefit development before the detailed 'routine risk' implications on-site operatives can be considered, probably at RIBA Stages 4 or 5.

The design team can now develop the concept fully and, with client agreement, take this into spatial coordination. Here the team test all the design issues with the site constraints to develop an 'in principle' design proposal suitable for a planning application with the confidence that a future building regulations application, especially in the area of fire safety design, will be possible.

RIBA Work Stage 3[4] The project team should then consider 'significant" CDM issues in light of new information. This is known as the 'iterative design spiral' and is the stage - throughout Stage 3 and Stage 4 technical design - where the whole scheme is interrogated both by the design team and peer reviews.

The DRM Toolkit[5] Schedule of Significant CDM Issues (Template CDM 3) should be used to track and record issues and changes. Where complicated issues occur, these should be captured visually in the CDM Analysis & Options Matrix (CDM 4) with brief annotation and clear future actions. It is beneficial during RIBA Stage 4 if early contractor design can be integrated with the process, including specialist contractor design for the ever-increasingly sophisticated design that our society expects. The detailed entries will depend upon the clients' willingness to appoint contractors on pre-contract service agreements or not. The latter can result in further design development being necessary during RIBA Stage 5[6] Manufacturing & Construction; The more design lockdown that can be finalised at earlier, pre-contract stages, the better from all perspectives. An example of this can be found on page 4 in an extract of appendix 1.

While significant CDM information is being collated and analysed issues should be identified on the drawings as they are evolving. Locations should be highlighted (not just in Safety Health and Environment - SHE boxes); even if things have been omitted (for example, the removal of existing underground services or asbestos in difficult locations).

Project information should now be in a suitable state of development to be tendered, or costs further developed. This can form the basis for a contract moving into Stage 5 where the actual one-dimensional normal routine contractor risks can be analysed further, with the assistance of specialist sub-contractors with some design responsibilities.

[3] *RIBA Plan of Work 2020 Overview - RIBA Plan of Work (architecture.com)*
[4] *RIBA Plan of Work 2020 Overview - RIBA Plan of Work (architecture.com)*
[5] *RIBA DRM Toolkit – Appendix 1*
[6] *RIBA Plan of Work 2020 Overview - RIBA Plan of Work (architecture.com)*

DRM at PCSA and Contract Stages 4–6

The main construction contract can be agreed at various points during the RIBA Workstages 3, 4 and 5 depending upon the form of contract and the project's complexity. The same applies to other project process control methods such as GRIP (Governance for Railway Investment Projects) for railways and similar for highways or infrastructure.

Modern construction methods require specialist subcontractor designers to assist and inform the design development of complex elements or packages. This is irrespective of the actual work stage timing and includes consideration of things such as, facades, structural, services, builders work. From an overall design or DRM perspective there is a need to coordinate the activities of specialists. The interfaces between cladding, fire-stopping, structure and insulation are key to the building's eventual constructional integrity, as has been identified at the Grenfell Tower Public Enquiry.

Early pre-contract service agreements (PCSAs) - or normal post-contract sub-contracts - all facilitate this DRM process depending upon the early sequencing of works. This issue is further complicated with regard to advanced enabling works - such as soft strip and demolition. When certain design works are involved, a principal contractor needs to be appointed, while the main project design works run on alongside. The industry approach has been to appoint a separate principal designer for these temporary works. But this may be unnecessary. All that may be needed is a specialist temporary works designer working under the control of the main works PD. The same logic applies to the main contract PD appointment. What may best serve the project is to have a principal contractor (PC) and a PD working in equal partnership during the main contract stage. Consequently, the role of the PD during this stage requires greater understanding as it is not about ensuring the contractor carries out their duties on-site, but about developing the design to meet the expectations of the proposed construction methodology.

Discovery on-site

Issues such as the discovery of hidden or unexpected objects or materials on-site require design change, and these can have considerable project-wide implications. This must be managed by a change control process where relevant team members review the impact on, among other things, cost, design, construction, programme and CDM. This needs to be done in a balanced, independent and proportionate manner and can be difficult to achieve if the PD is the same legal entity, or from the same organisation - often the case with a design & build contract.

Contract Stage

The Principal Contractor or Contractor must plan, manage and monitor the construction phase and coordinate matters relating to health and safety during the demolition (where applicable) and construction phases.

To assist/fulfil these duties particular focus should be working closely with the Principal Designer and designers on the design, technical and organisational aspects when these are being decided, in order to plan the various items or stages of work which are to take place simultaneously or in succession. This includes estimating the time required to complete the work stages, taking into account the general principles of prevention using simple methods e.g. ERIC / IERCIC etc.

Ideally the best solution for Temporary Works is permanent works. In most situations, better design risk management can be achieved by adjusting the permanent structure. For example, through marginal structural adaptations structures that span a little further or have additional loadings for the temporary conditions can eliminate or reduce the need for temporary works

The engagement of the operatives of the Subcontractors – or their agents or operatives – can be useful at this contract stage. They can help identify particularly challenging on-site construction difficulties capable of resolution by either minor design changes or use of more appropriate equipment. This process is impossible to carry out at earlier stages due to the infinite number of challenges and solutions possible, and engagement at this stage allows the workforce an opportunity to influence these health or safety-related decisions.

All these CDM processes assist with design risk management and the delivery of a CDM-compliant project and also assist the process of building regulatory compliance, which will be so important under the new Building Safety Act when enacted.

Summary

This design risk management process needs greater detail and cannot be managed by a risk register alone. Architectural projects have a high degree of complexity- these include alternative options, aesthetic considerations, and a myriad of site constraints - that all need to be proportionately assessed and a solution mutually agreed. This requires considerable visual analysis of the significant CDM issues for stakeholders to understand its complexity. Similarly, this cannot be purely by reference to project drawings as these, often transient issues such as temporary works or glass replacement, require decision making to inform the development of the project drawings. Subsequently, for scrutiny by all and in order to construct the building and form a record of those decisions, the rationale for these decisions needs to be captured proportionately in the CDM toolkit.

The CDM 5 template[7] captures all the relevant information for the health and safety file. This allows issues to be identified in a proportionate manner that aids understanding and where unnecessary and irrelevant detail could confuse understanding.

The CDM 6 template[8] explains the iterative process. It creates a roadmap so all contributors can understand what is required at each work-stage for all types of projects and different industry sectors. This process sits very well with the aspirations of the new Building Safety Bill 2020

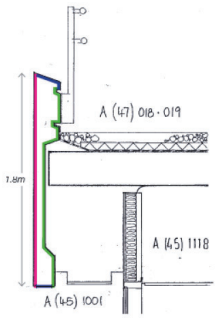
This RIBA DRM toolkit is available for use on your projects. A completed example showing a variety of projects is available in Appendix 1. A blank version can be downloaded in the Members Area of the APS Website or at or at: www.diohas.org

[7] *RIBA DRM Toolkit – Appendix 1*
[8] *RIBA DRM Toolkit – Appendix 1*

Extract from Appendix 1 – DRM Toolkit CDM4

4.0 CDM Analysis and Option Matrix (CDM4) • Project: 00000 • XX Month Year

Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP** (so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Owner& Status Not tolerable Ongoing Tolerable	H&S file
5.0	**Heavy Component Movement Strategy** (incl. large, heavy and awkward components, method of vertical and horizontal movement for delivery storage & placement)			
		5.1.a Heavy movement: The removal strategy is to be agreed. This includes heavy movement. The refurbishment and storage location is to be agreed. This may on site or off site, which will then require transport.	Client/ PC	
		5.2.b. The refurbishment and storage location is to be agreed. This may on site or off site, which will then require transport.	Client/ PC	
		5.3.c. The replacement strategy of existing refurbished panels and new panels is to be agreed.	Client	
		5.4.d		
		etc.		

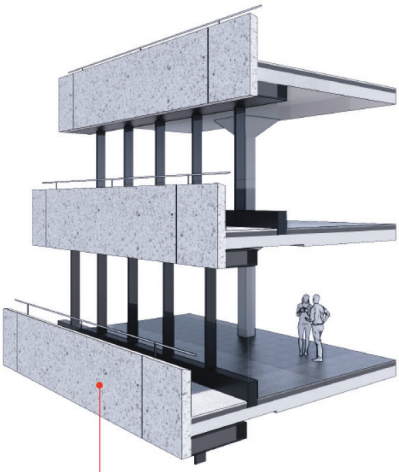


Existing Pre-cast Panels - Archive drawings

Different existing finishes:

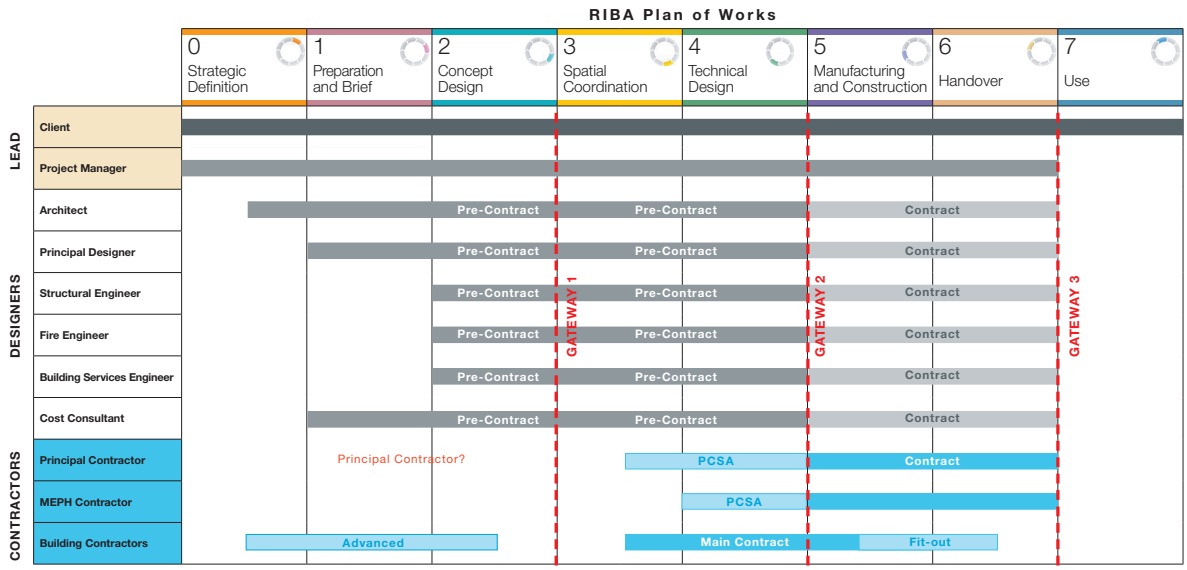
- 40mm silver grey Cornish granite from Penryn Aggregate Ltd, seeded onto the top face of the mold, hand tamped to align the aggregate, then washed down to recess the cement, which was dyed to match the granite.
- A retarder is used to expose the 20mm aggregates within the panel to suggest the rough 'seeded' finish wraps around the panel.
- The rear of the panel is as struck from the mold, and is profiled to reduce the panel's weight.

Photograph showing existing panels being installed on site

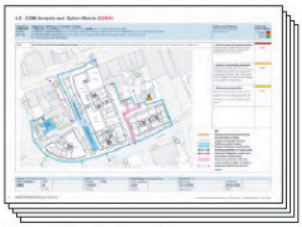


Extract from Appendix 1 - CDM 1A timeline

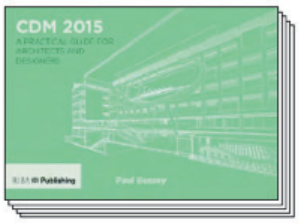
1.0 Project CDM Strategy Brief - Project Team Timeline (CDM1a)



Worked Example of CDM Toolkit


CDM analysis and options matrix

Schedule of significant CDM issues



Paul Bussey, AHMM's in house CDM Specialist, is the author of RIBA's 'CDM 2015: A Practical Guide for Architects and Designers'.

Suggested further reading

CDM 2015: A Practical Guide for Architects and Designers
Author: Paul Bussey
Publisher: RIBA Publishing
Publication date: April 2015
ISBN: 9781859466131

Practical Guide to using the CDM Regulations - Teamwork not Paperwork
Author: Tony Putsman and Paul McArthur
ISBN: 978-0-7277-5990-0

About the authors

Tony Putsman BSc(Hons), MICE, C.Eng., ICE Health & Safety Registered (Advanced) - Director, Xenophon Project Services Limited
An experienced civil engineer, he has worked across all the major sectors of the Construction Industry, moving from a hands-on, project delivery role to becoming a management development specialist. He set up his own risk management consultancy (XPS) in 2002 and has worked with clients in virtually all sectors of the Industry, as well as the major professional institutions.

Tony is co-author of 'Practical guide to using the CDM Regulations 2015 - Teamwork not Paperwork' (ICE Publishing) which was published in April 2015 and more recently lead author of the report 'CDM 2015 – from Compliance to Consultation and Collaboration', which was delivered to CONIAC in April 2019 by the 'Keeping Pace with Change' working group, of which he is a member.

Stephen Coppin BEng(Hons) MSc FaPS FCIOB FIIRSM CFIOSH CBIFM PIEMA Associate Technical Director of Arcadis, a design & consultancy.
Has been proactive with the HSE on best practice initiatives within the construction industry on CDM e.g. CONIAC/CONIAN and active on the BIM4 Working Group, incl. various other professional bodies on the CDM changes, integrated gateways and worker engagement research reports. Previous Mech design, Military Eng and Construction Mgr incl. CDM roles. Chair of CIOB HS&W SIG provided input to BSI and BSA on competency of PD, PC & BSM. Speaker on Design for Safety & Digital incl. master class for IOSH & Ministry of Manpower (MoM) in Singapore, CIC HK webinar and DRM & PD courses and seminars.

Paul Bussey
Senior Technical Consultant
Paul is an architect with over 40 years of experience of architectural practice in small, medium and large practices in the UK and abroad, including job running ,technical advisory and practice management experience. Over this period he has developed a specialist technical expertise in the application of all types of building related legislation and constructional guidance. He is the London representative of the in-house AHMM Technical Consulting team who research current and best practice technical solutions in regulatory compliance and thereby assist the project teams to meet their statutory and contractual obligations on all projects. Using Integrated team-working techniques Paul provides a comprehensive fire safety,CDM and inclusive design solutions that provide best architectural options whilst also meeting the client's conceptual, practical and financial aspirations. By alliancing or collaborating with external CDM, Governmental and Fire Engineering , and Inclusive Design organisations he has helped to develop a truly internationally experienced team that offers award winning design, construction and client implementation solutions.

This practice note can be accessed in alternative formats by contacting APS

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Status of this guidance
The contents of this practice note are intended for information and general guidance only. If you need guidance on how to approach the challenges associated with specific situations and projects, you should seek advice from a suitably qualified person.

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About APS

The Association for Project Safety [APS] is a professional body dedicated to eliminating deaths, reducing injury and tackling ill-health associated with construction. APS aims to improve, and promote excellence in, professional practice in design and construction health & safety risk management, helping everyone manage risk and implement building regulations effectively and proportionately. The association contributes to the national debate on building and infrastructure safety, regulation and legislation, providing training, education and support and member networking opportunities. APS works with other bodies and partners to improve – through good design and throughout the life-cycle of projects and buildings – health & safety for everyone involved in construction and use.

Project Name

Stage Number

Part 1 of 2

Version No, DD Month YYYY

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Note
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Contact details
(Project Architect name)
(Project Architect email)

Company address

CDM Analysis Report including Pre-Construction Information (PCI)

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GA Drawings with significant CDM Issues located

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Page numbers to be adjusted as required

Introduction

‘Gateway West’ is a mixed-use scheme located in Surrey. The site is located at the western end of the high street, and will act as a catalyst for the regeneration of the town centre and the local area.

The site also presents a strong opportunity for place-making by creating a new destination and upgraded public spaces for both visitors and residents.

The proposals will not only enhance the quality of the existing site, but provide a wide range of services to the wider local community such as retail, leisure, residential and student accommodation.

1.0 Project CDM Strategy Brief (CDM1)

CDM Strategy Brief	Team Responses to Project Leader	Comments - Contact details, Notes, Dates Reviews etc.	●
Project Details			
Description of project / outline scope of works.			
Address/location/environment of site.			
Client Brief / Outline CDM Scope			
Operational requirements (e.g.any existing activities to remain e.g. Occupation, Manufacture etc)			
H&S expectations of client (if above Statutory requirements)			
H&S file -format & index (if different to Appendix 4 L153) of future file			
Project Timescales (what are the key stages and how long will they run for?)			
RIBA Stage 0 - Strategic Definition			
RIBA Stage 1 - Preparation and Brief			
RIBA Stage 2 - Concept Design			
RIBA Stage 3 - Developed Design			
RIBA Stage 4 - Technical Design			
RIBA Stage 5 - Construction			
RIBA Stage 6 - Handover & Close Out			
RIBA Stage 7 – In Use			
Commission/ handover/ H & S File			
Clarify at which of the above stages are you starting the CDM/Principal Designer process			
Is there any pre-existing CDM Analysis, risk register, H&S file or relevant information & where?			
Strategic Risks (what are the significant or unusual site H&S risks or client requirments)			
Work involving Particular Risks - Refer to L153-Schedule 3 (eg: offsite manufacture, large PC panels, working over water etc). See Appendix A			

CDM Strategy Brief	Team Responses to Project Leader	Comments - Contact details, Notes, Dates Reviews etc.	
Strategic Design Intent and associated risks (e.g. Major temporary works, Stability considerations, unusual site constraints & logistics occupation on site).	(Project specific brief comments eg. Atrium essential, Public use of roof, Building over water, etc)	(Any significant suggestions, recommendations, actions.)	
Project Leadership			
Client	Lead Contact and Organisation	Email	
Project Manager	Lead Contact and Organisation	Email	
Principal designer	Lead Contact and Organisation	Email	
Principal contractor	Lead Contact and Organisation	Email	
Cost Consultant- QS	Lead Contact and Organisation	Email	
Architects	Lead Contact and Organisation	Email	
Designer 1 (eg: Structural)	Lead Contact and Organisation	Email	
Designer 2 (eg: Services)	Lead Contact and Organisation	Email	
Designer 3 (eg: Landscape) etc.	Lead Contact and Organisation	Email	
(Continue as required) (Others).	Lead Contact and Organisation	Email	
Procurement Strategy			
Approx. Contract Sum/Anticipated Project Cost (if known)			
Form of Contract (if agreed)			
Communication Strategy			
Team meetings anticipated, number, frequency, length, location etc. at each workstage. DTMs, CDM, Client etc	Will CDM issues be considered at each DTM? or will dedicated meetings be required? Or both?		
Design Team Induction Process for CDM	(Strategy Brief for new design team members.)		
Visual tools, drawings, analysis documents, reviews essential from all.	(Relevant drawing, images, photos to be included in CDM report.)		
Use of BIM for Health & Safety			
Health and Safety File Status (PD Update of DTMs or Progress Meetings)			
Client Duties			
F10 to be issued			
Provide PCI to team			

● – Information required / awaiting

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect	AHMM	Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

CDM Strategy Brief	Team Responses to Project Leader	Comments - Contact details, Notes, Dates Reviews etc.	
Welfare facilities + Site establishment	Assist Client and Principal Contractor with Site Drawings		
Construction phase plan prepared before construction commences	Assist Client and Principal Contractor		

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect	AHMM	Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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2.0 Site Investigation and Surveys Data Tracker (CDM2)

Ref	Item	Action Owner/Notes	Status
1	Ordnance Survey (Accuracy ± 400mm Urban Areas)		
2	Historical Maps		
3	Existing Record Drawings from Client		
4	Drawings (List of Drawings or refer to a Schedule of Drawings)		
5	Existing Health & Safety File (CDM) from Client (Buildings completed or altered since 1995)		
6	Services/Utilities/Statutory Authorities (Location and Capacities) possible diversions and or need for new infrastructure e.g. sub-station. *(Gas/water/electricity/ Sewers/Telephone/ Cables/ Drainage condition)* Note: PAS 128:2014 Survey Type A		
7	PTAL (Public Transport Accessibility Level) Rating		
8	Other Town Planning Applications		
9	Asbestos (Demolition/ ground)		
10	Aerial Photographs		
11	Historic Photographs		
12	Underground Features (Tunnel/Mining/Fracking)		
13	Boundaries / Land Ownership		
14	Land Registry Plan		
15	Ownership Deeds/Easements /Covenants		
16	Rights of Way		
17	Party Wall Matters		
18	Rights of Light		
19	Listed Building – Historic England Listing Description		
20	Local Development Framework		
21	Land Use Zones		
22	Conservation Areas		
23	View Corridors to Landmarks		
24	Height Restrictions		
25	National Parks		

Ref	Item	Action Owner/Notes	Status
26	Areas of Outstanding Natural Beauty (ANOB)		
27	Green Belt		
28	Refuse Collection Strategy		
29	Sites of Special Scientific Interest (SSSI)		
30	Local Byelaws		
31	Topographic Survey - Measured Survey/Land Survey – Features		
32	Laser Survey/ Sub scan Survey/ Cloud		
33	Structural Survey / Condition Survey		
34	Transport Survey		
35	Parking Survey		
36	Archaeology		
37	Desktop Study/ Photographic survey/ Initial site visit report		
38	Excavations/ Burial site survey		
39	Noise/Acoustic Survey		
40	Air Quality Survey		
41	Arboriculture (Tree) Survey – Tree Preservation Orders/Clay Shrinkage/ Clay Heave/Root Protection Zones Note: BS 5837 (2012)		
42	Ecological Survey (protected species/ bat roosts/snails/slow worms)		
43	Environmental Assessment Survey		
44	Flood Risk Assessment		
45	Geotechnical Survey (bore holes/trial pits- existing features and foundations)		
46	Contamination (Pathogens/Anthrax/ VOC's/Radon/Methane)		
47	Lead Paint Survey		
48	Unexploded Ordnance (UXO) Report		
49	Quality of incoming water		
50	COMAH Regs 2015		
51	*Other relevant Survey Information		

Status Key

- Information required
- Requested surveys
- Information received

Note - This survey tracker is for reference purposes only and should not be considered as a record of survey information or revisions. Responsibility sits with relevant consultants for advising the client of surveys required to carry out their design services and for keeping an up-to-date record of latest survey information.

* This list is not necessarily comprehensive

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

DRAFT

Ref	Item	Action Owner/Notes	Status

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
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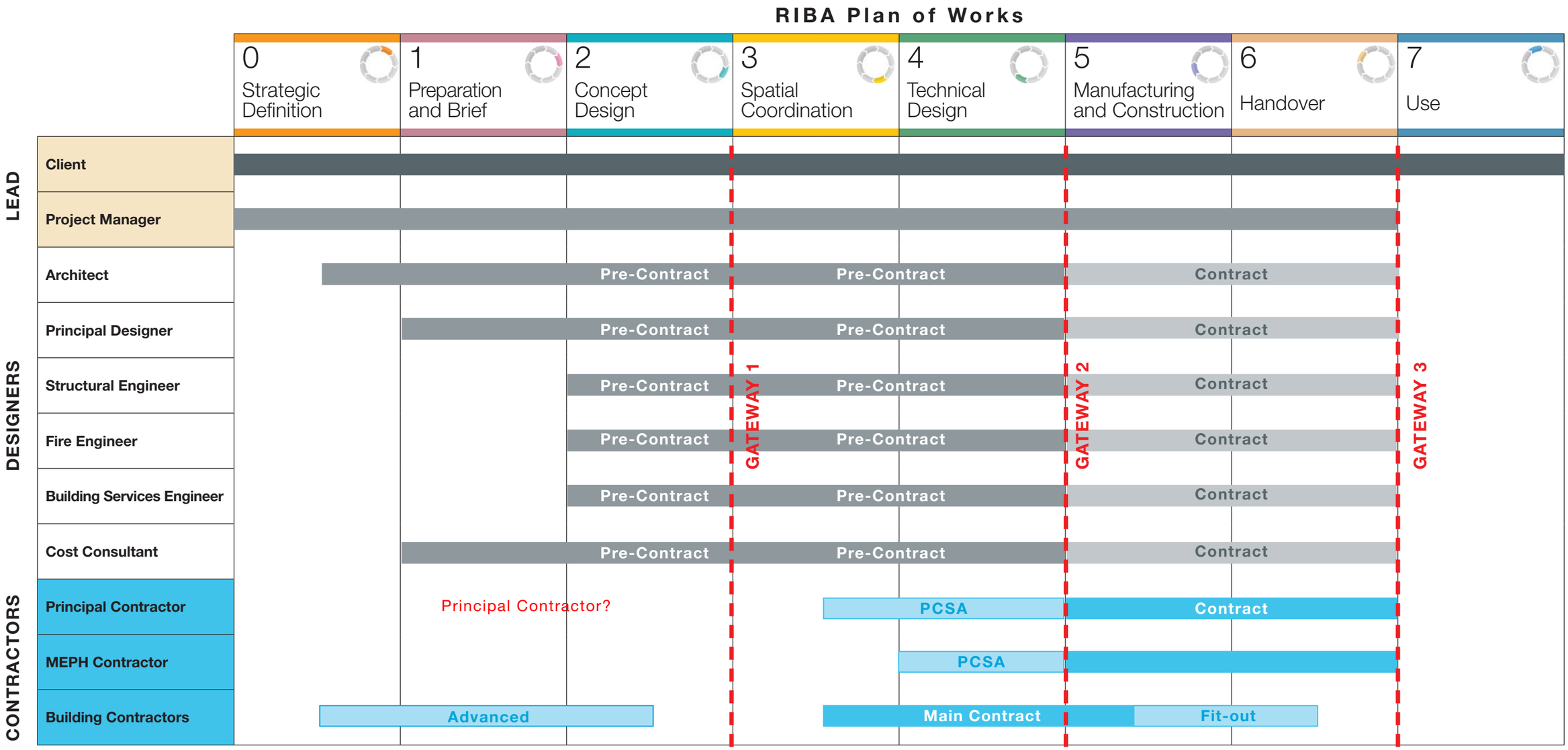
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

1.0 Project CDM Strategy Brief - Project Team Timeline (CDM1a)



NOTE:-All stakeholders, appointment and contract periods to be adjusted to suit the project strategy.

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

3.0 Schedule of Significant CDM Issues (CDM3)

Significant Risk/ Issue No.	Significant CDM Issues/ Description of Significant Risk * Generic issues to be avoided	Mitigation, Control Measures or further information 'So far as in reasonably practicable' (SFARP)	Design Issues Owner & Status Not tolerable / Ongoing / Tolerable	H&S file ✓
1.0	**Site Environs and Site Establishment Strategy** (incl. local features, transport corridors, pedestrian flow, welfare provisions, vehicular access, site storage, unloading, cranage etc)	(Brief Information to be added as an executive summary. Details to be added in CDM 4)		
			Action Owner	
				✓
2.0	**Site Enabling Strategy** (incl. demolitions, de-contamination, remediation, temp. works etc.)			
				✓
3.0	**Existing Building and Services Strategy** (incl. above and below ground features, adjoining properties, party wall issues etc)			
4.0	**Structural Works Strategy** (incl. permanent, temporary & demolition requirements)			
5.0	**Heavy Component Movement Strategy** (incl. large, heavy and awkward components, method of vertical and horizontal movement for delivery storage & placement)			
6.0	**Off-site & On-site manufacturing and assembly strategy** (incl. prefabricated, modular, hand installed etc)			

*** Significant risks** not necessarily those that involve the greatest risks, but those (including health risks) that are not likely to be obvious, are unusual, or likely to be difficult to manage effectively (Ref. CDM 2015 L153).

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

Significant Risk/ Issue No.	Significant CDM Issues/ Description of Significant Risk * Generic issues to be avoided	Mitigation, Control Measures or further information 'So far as in reasonably practicable' (SFARP)	Design Issues Owner & Status Not tolerable / Ongoing / Tolerable	H&S file ✓
7.0	**Safe working at height strategies** (e.g. significant roof access, high ceilings, etc.)			
8.0	**Health Strategy** (eg: excessive, dust, MSD, HAV, noise minimisation etc.)			
9.0	**Plant & Services design and installation strategy** (e.g. location and construction issues)			
10.0	**Plant Replacement strategy** (e.g. future access issues)			
11.0	**Plant, plantrooms services + riser access and Maintenance strategy**			
12.0	**Facade access, window cleaning and glass replacement strategy**			
13.0	**Phasing strategy** (e.g. site, construction, occupation, etc.)			
14.0	**Miscellaneous issues** (e.g. landscaping, wellbeing, Workplace Regulations etc.)			
15.0	Quality Control- Client monitoring, Clerk of Works, 3rd Party Certification			
16.0	Fire Strategy (incl. Building Regs, Compartmentation & Fire Stopping)			

*** Significant risks** not necessarily those that involve the greatest risks, but those (including health risks) that are not likely to be obvious, are unusual, or likely to be difficult to manage effectively (Ref. CDM 2015 L153).

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
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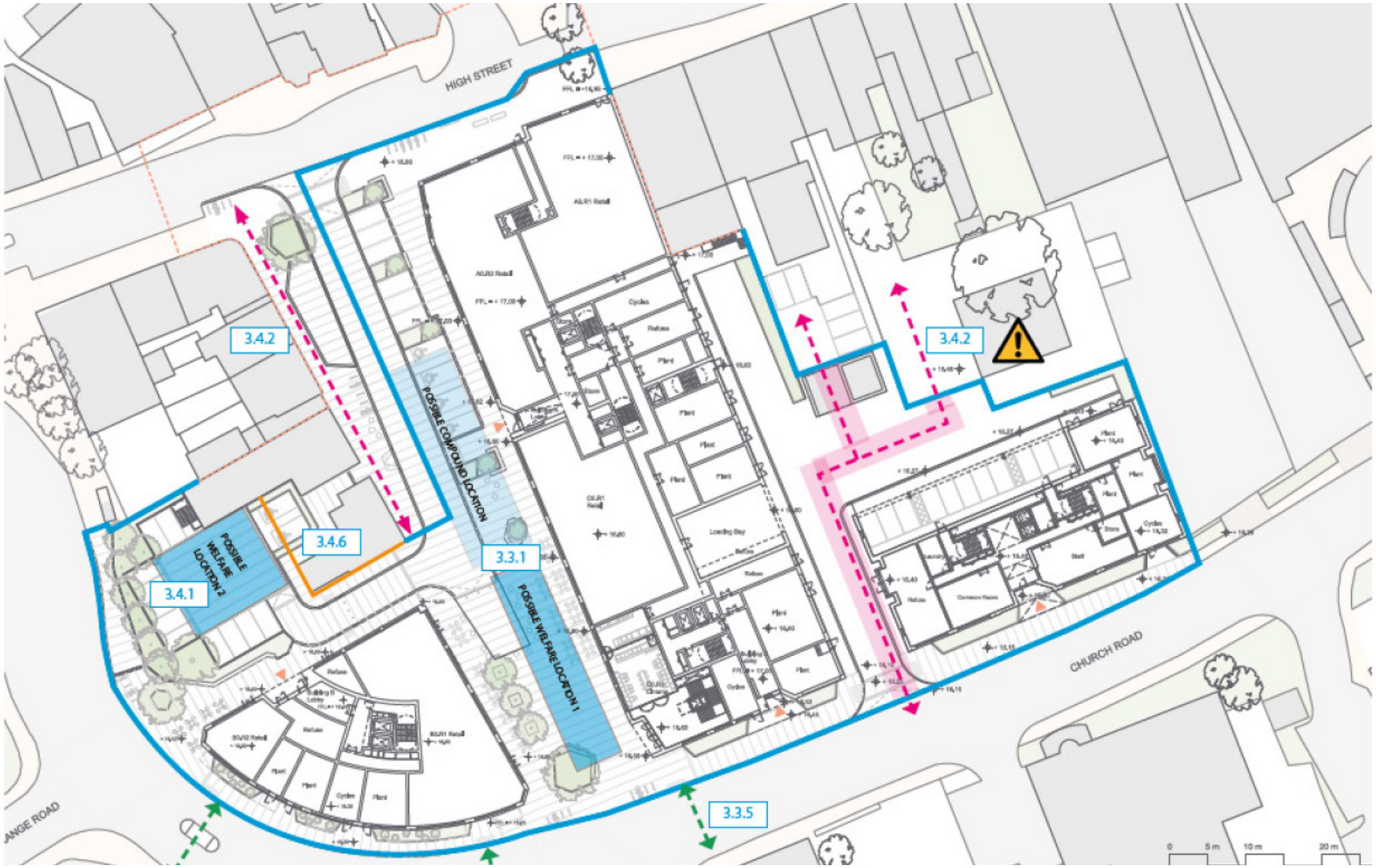
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

4.0 CDM Analysis and Option Matrix (CDM4)

Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Owner& Status Not tolerable Ongoing Tolerable	H&S file ✓
1.0	**Site Environs and Site Establishment Strategy**	1.1.a **Site compound and welfare location** Repositioning of welfare facilities will be required by the contractor during main building and land-scape works.	Client	
		1.1.b **Access to surrounding properties** Access during works will need to be maintained. Hoarding line to be positioned to enable safe access, and escape from, surrounding properties. High end chinese shop moving into the west of site. strategy to be agreed with leaseholders	Client	
		1.1.c **Temporary escape Routes** to be maintained across site for escape from surrounding prop-erties. Design team to consider fire safety requirements.	Client	



KEY
- Denotes indicative hoarding line arround listed building.
- Compound possible location
- Welfare possible location
- Denotes indicative hoarding line.
- Existing pedestrian crossing points.
- Vehicular/Pedestrian routes to be maintained during works.
- Proposed pedestrian/vehicular routes within hoarding boundary.
- Proposed addtional pedestrian routes.

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
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Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
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2.0	**Site Enabling Strategy** (incl. demolitions, de-contamination, remediation, temp. works etc.)	2.1.a The escape staircase to be retained throughout demolition and proposed works providing a safe escape route in case of fire, for the adjacent buildings to the street.	PC	
		2.2.b The existing UKPN substa-tion to be decommissioned and demolished.	Client/ PC	
		2.3.c The proposed are two UKPN sustations 1. to provide services to the new proposed carrington street building 2. to provide services to external premises. Access and maintences to both UKPN substation to be agreed and included in H&S file.	Client	
		2.4.d The structural stability of the walls to be retained should be established with structural enginners.	Struct Eng	

Existing upper ground floor plan

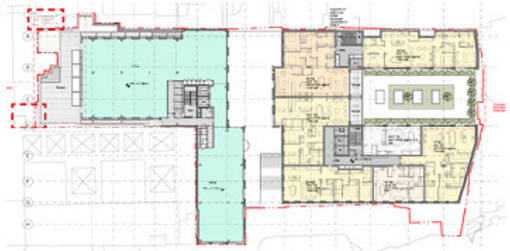
Proposed demolition upper ground floor plan

Proposed upper ground floor plan

Existing first floor plan

Proposed demolition first floor plan

Proposed L01 Floor Plan



Existing lower ground floor plan

Proposed demolition lower ground floor plan

Proposed lower ground floor plan

Key

- a - Staircase to be retained.
- b - Existing UKPN substation.
- c - Proposed two UKPN substations.
- d - Retained walls.

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
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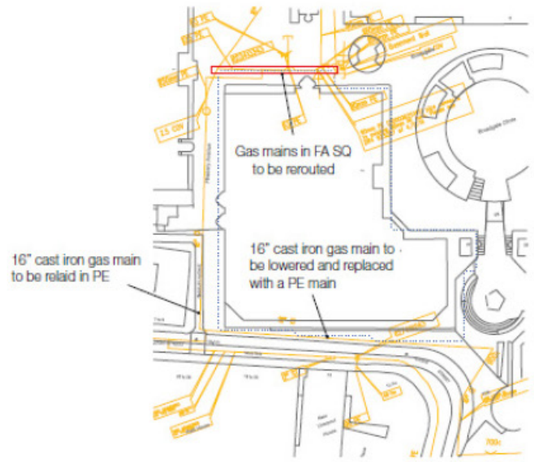
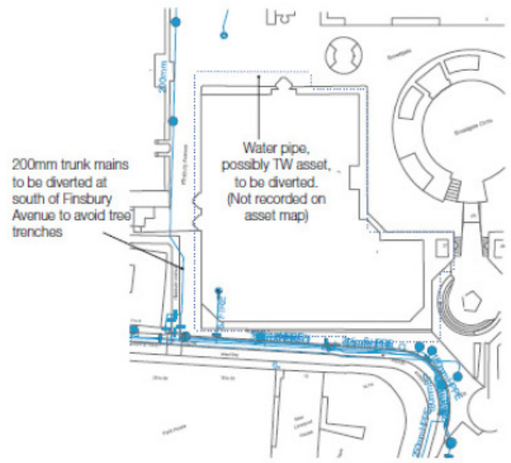
3.0	**Existing Building and Services Strategy** (incl. above and below ground features, adjoining properties, party wall issues etc)			

Line and Level Thames Water Sewer Survey, by Reach Active



Cadent Gas Asset Record Extract



Thames Water Asset Record Extract

3.1.a **Utility surveys** • Utility surveys have been carried out during Stage 2-3, including desk studies, below grade detection surveys, stake-holder consultation and trial pits. Phase 2 diversion proposals now underway • Coordination required with all stakeholders to ensure continued operation and protection of these assets • Contractor to devise a safe system of work to include additional searches/survey where information is incomplete or inconclusive. All services uncovered are to be labelled clearly • Refer to Appendix 5.6 HM - Combined Services for Enabling Works	Enabling works contractor	
3.2.b **Gas** • Cadent Gas are the gas network operator in the area • 16" cast iron main runs through Eldon St, Finsbury Avenue and Finsbury Avenue Square; to be relaid in PE and lowered along Eldon Street. First phase of works currently underway • 2no. smaller PE gas mains run east to west along the northern perimeter of 1BG; to be rerouted • Gas mains require detailed monitoring throughout demolition, piling and temporary works, including site monitoring of ground vibration.	Enabling works contractor	
3.3.c		

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
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Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
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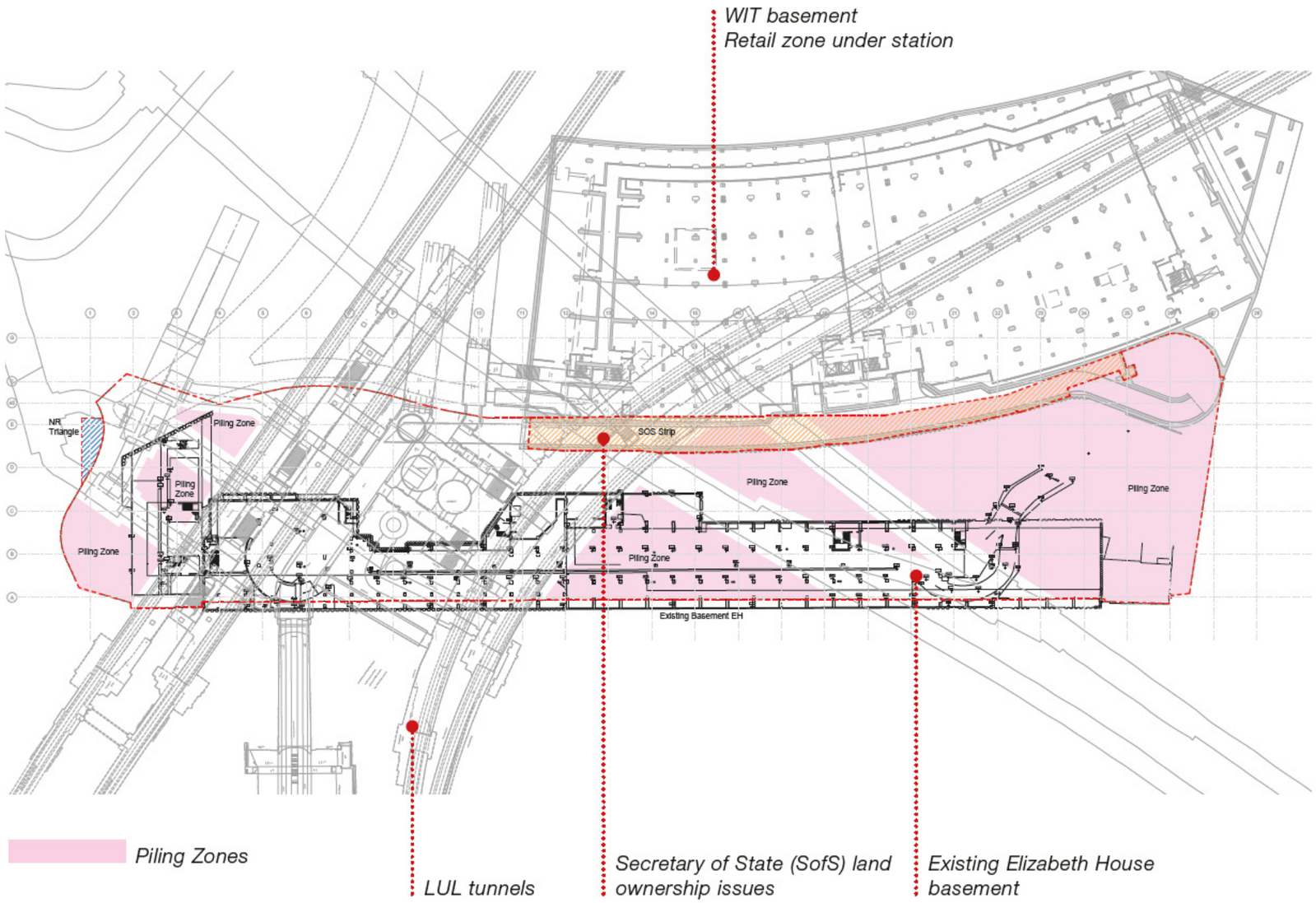
4.0	**Structural Works Strategy** (incl. permanent, temporary & demolition requirements)	4.1.a Due to underground constrains piling is only possible in very few specific locations on site.	Note	
		4.2.b Piling in a close proximity to LUL assests.		
		4.3.c North portion of the existing basement to be retained. New raft on top of existing raft. Survey of the existing basement required. Survey received.		
		4.4.d North portion of the existing basement to be retained. New raft on top of existing raft. Survey of the existing basement required. Survey received.		
		4.4.e Test pile required to prove the methodology to LUL.		



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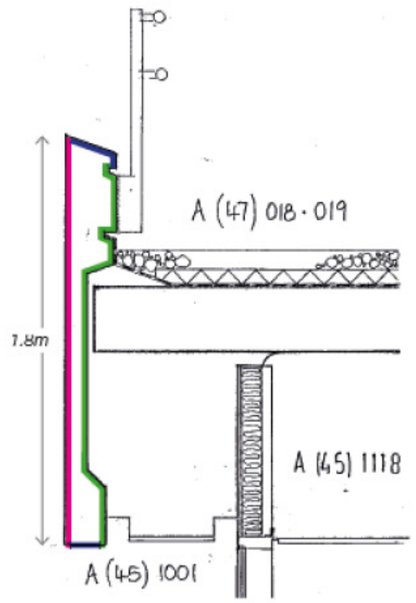
5.0	**Heavy Component Movement Strategy** (incl. large, heavy and awkward components, method of vertical and horizontal movement for delivery storage & placement)	5.1.a Heavy movement: The removal strategy is to be agreed. This includes heavy movement. The refurbishment and storage location is to be agreed. This may on site or off site, which will then require transport.	Client/ PC	
		5.2.b. The refurbishment and storage location is to be agreed. This may on site or off site, which will then require transport.	Client/ PC	
		5.3.c. The replacement strategy of existing refurbished panels and new panels is to be agreed.	Client	
		5.4.d		
		etc.		

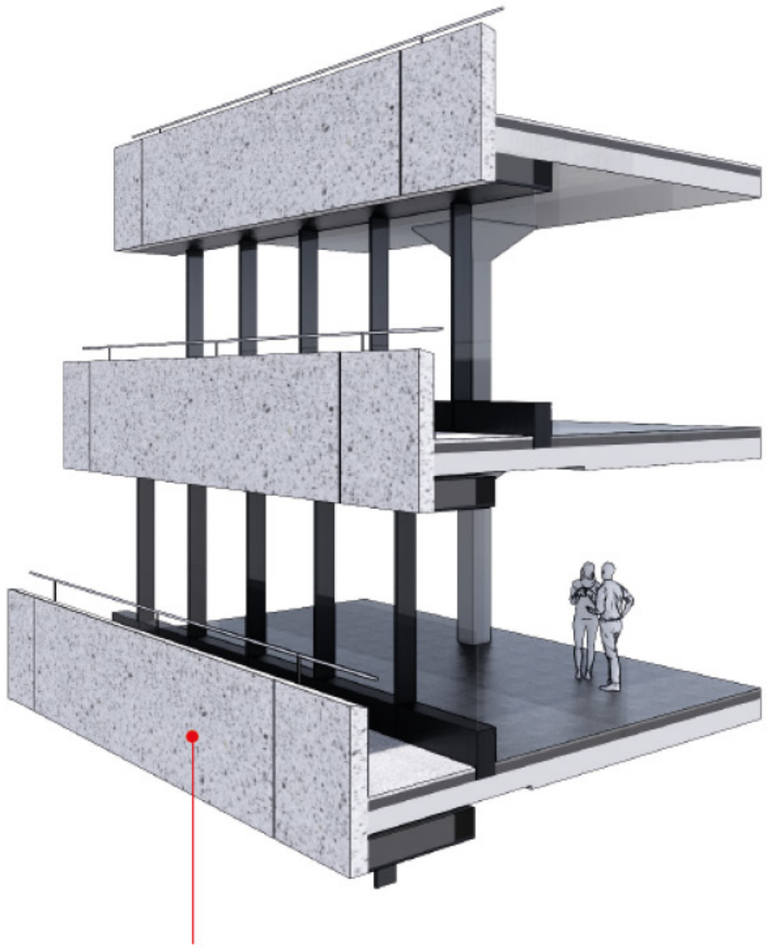


Existing Pre-cast Panels - Archive drawings

Different existing finishes:

- 40mm silver grey Cornish granite from Penryn Aggregate Ltd, seeded onto the top face of the mold, hand tamped to align the aggregate, then washed down to recess the cement, which was dyed to match the granite.
- A retarder is used to expose the 20mm aggregates within the panel to suggest the rough 'seeded' finish wraps around the panel.
- The rear of the panel is as struck from the mold, and is profiled to reduce the panel's weight.

Photograph showing existing panels being installed on site



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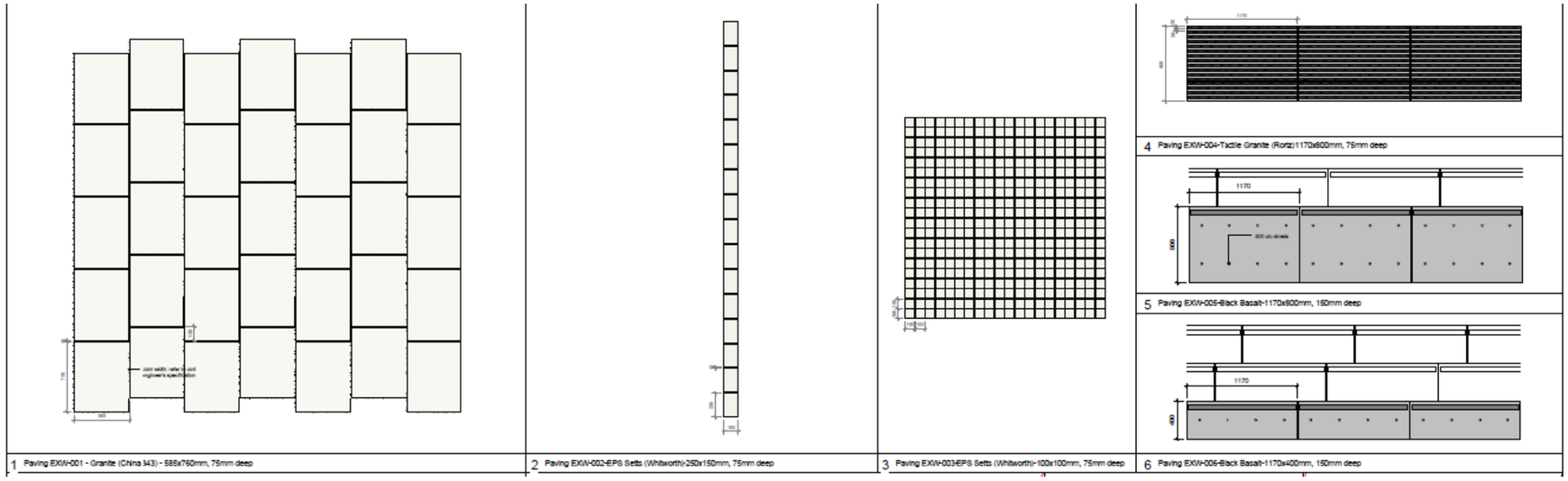
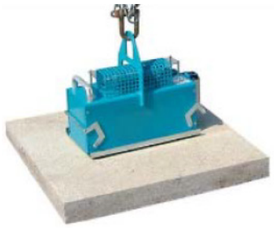
6.0	**Off-site & On-site manufacturing and assembly strategy** (incl. prefabricated, modular, hand installed etc)	6.2.a Cutting of paving slabs to be minimised on site, by using units which are already factory-cut to the required sizes. Where further cutting is required. Contractor to consider whether this could take place off site, or whether there is potential to include a cutting booth with suitable ventilation to reduce the risk of dust related injuries. Contractor to produce RAMS.	PC	
		6.2.b		
		4.3.c		
		4.4.d		





Gamma Levator

Capacity: 150-500kg
Weight: 42kg (solo device)
Battery Life: 8 hours
Reference: VSL65

Mini Gantry Crane & Screw Clamp

Capacity: 500kg
Weight: 76kg
Lifting Height: 2.8m
Reference: MSL45

Stone Dolly

Capacity: 320kg
Max Sheet Thickness: 50mm
Reference: AGT21

Big Foot 450

Capacity: 450kg
Max Hook Height: 2.7m
Weight: 564kg
Reference: MCO12

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
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	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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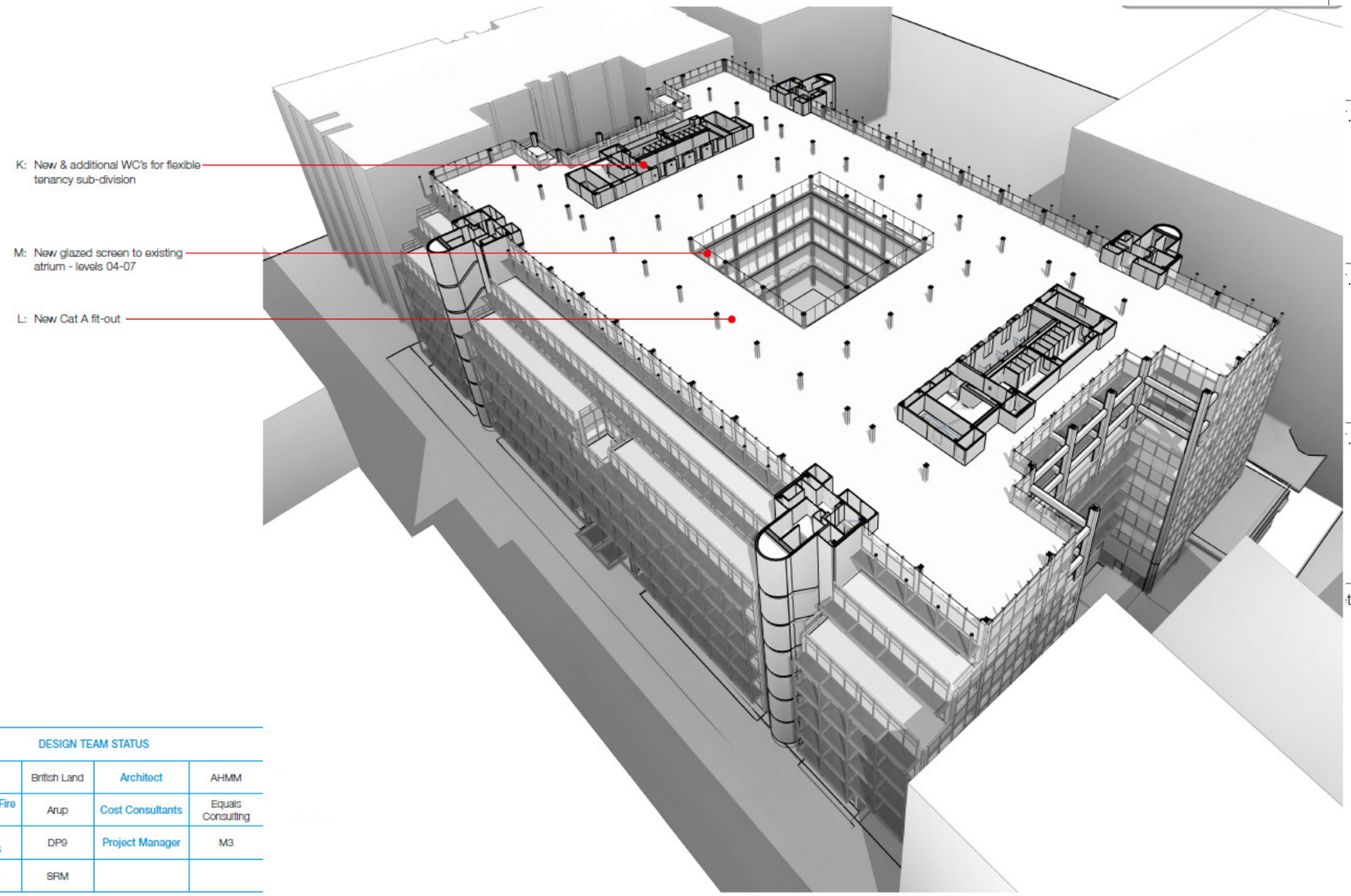
7.0	**Safe working at height strategies** (e.g. significant roof access, high ceilings, etc.)	7.1.a	Action Owner	
		.2.b		
		.3.c		
		.4.d		
		tc.		



DESIGN TEAM STATUS			
Client	British Land	Architect	AHMM
Struct, Serv & Fire Eng.	Arup	Cost Consultants	Equals Consulting
Planning Consultants	DP9	Project Manager	M3
Principal Contractor	SRM		

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
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	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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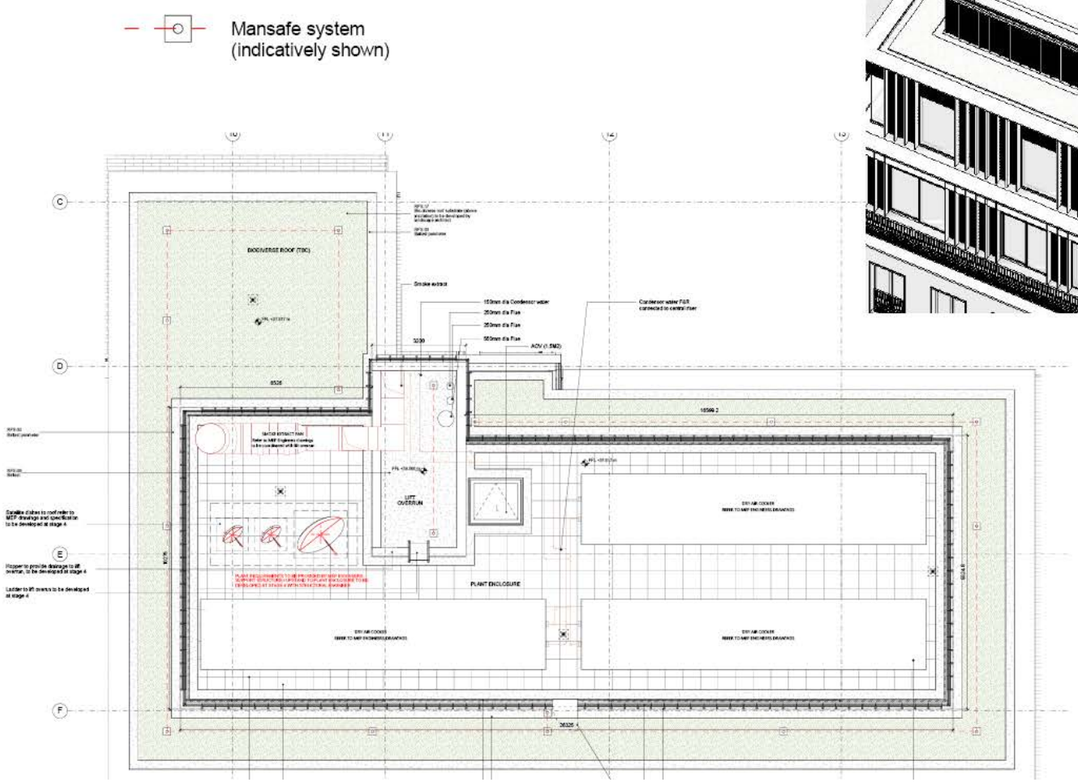
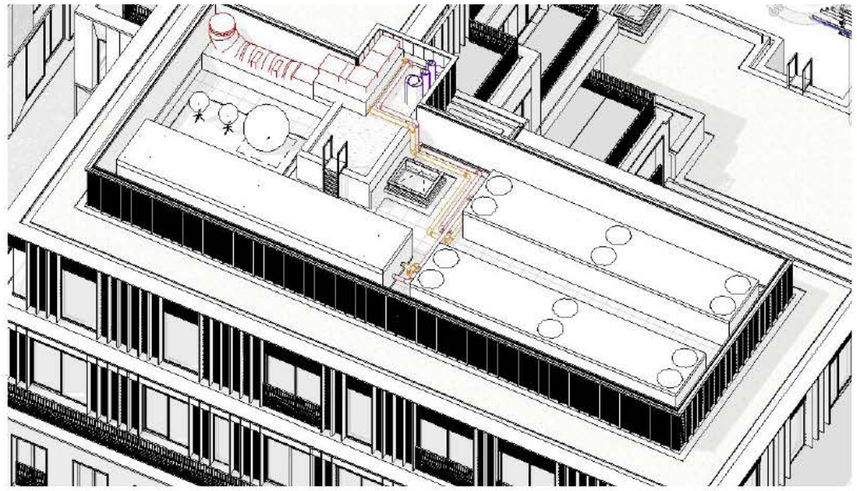
8.0	**Health Strategy** (eg: excessive, dust, MSD, HAV, noise minimisation etc.)	8.1.a 2.4.3: Disruption and access Noise, vibration and disturbance from construction works to neighbours to be considered during construction works. Existing properties to be maintained during demolition work.	PC	
		8.2.b		
		8.3.c		
		8.4.d		

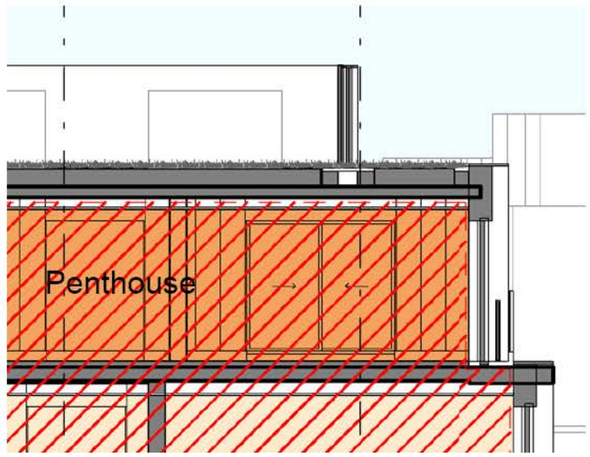
2.4 DEMOLITION PLAN

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Owner& Status Not tolerable Ongoing Tolerable	H&S file
9.0	**Plant & Services design and installation strategy** (e.g. location and construction issues)	9.1.a	Action Owner	
		9.2.b		
		9.3.c		
		9.4.d		
		etc.		







Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
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Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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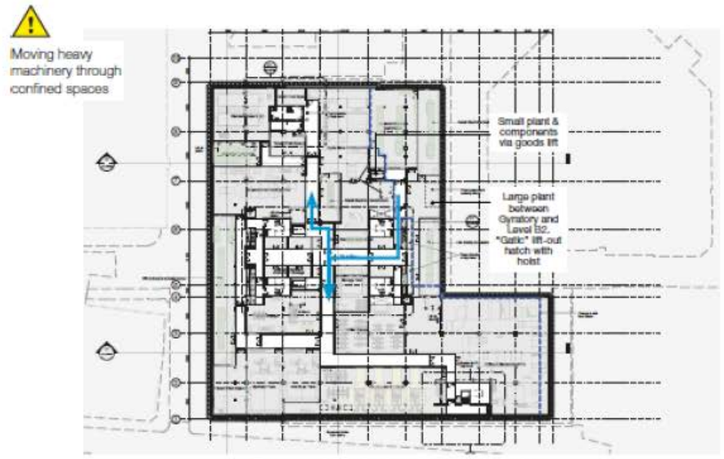
10.0	**Plant Replacement strategy** (e.g. future access issues)	10.1.a **Basement 02 Plant** • Many smaller plant replacement items can be transported via the goods lifts at Gyratory level directly down to Basement 02 • Larger pieces will need to be lowered down to B2 through a hatch in the loading bay. Opening approx 3.5m x 8.6m. This opening will be secured with gatic lift out panels when not operable. Lifting beam above with 4.3m clear height • Corridors in B2 to be appropriately sized. The plant installation / replace-ment strategy report will identify the key access routes for plant replacement • HM to review that adequate space between columns and access zones to plant are provided • Refer to Appendix 5.4 HM - Designer's Health & Safety Risk Assessment Report.	HM	✓
		10.2.b **Basement 01 Plant** • Plant in Basement 01 can only be replaced through the goods lifts at Gyratory so larger plant will need to be panelised or stripped down as necessary • The south west pump room is to be serviced through the offi ce cycle store • Refer to Appendix 5.4 HM - Designer's Health & Safety Risk Assessment Report	HM	✓



Basement 02 plant replacement strategy

Basement 01 plant replacement strategy

Loading Bay Plan, showing the Access Hatch

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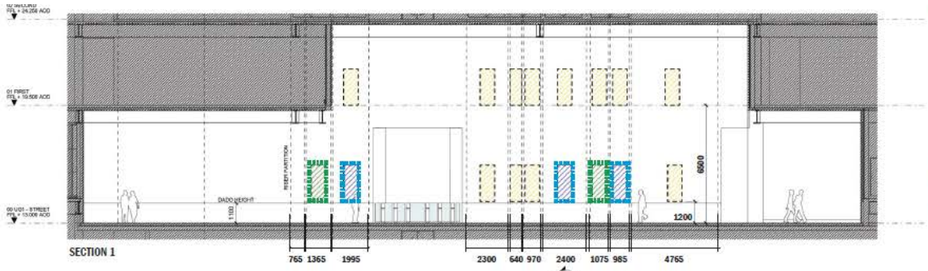
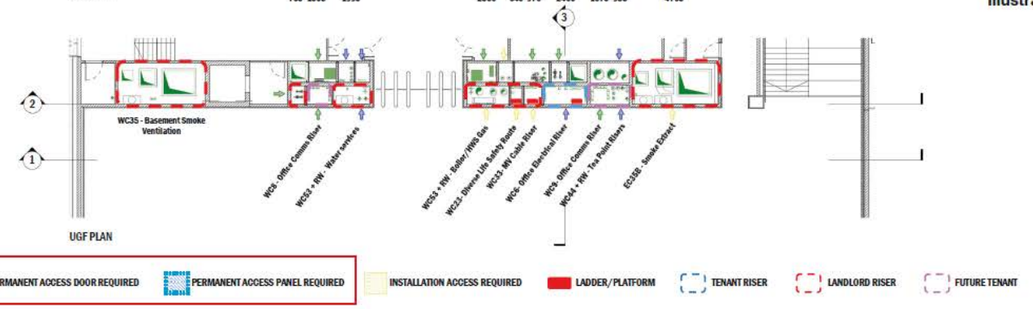
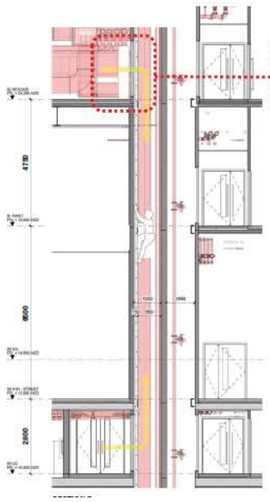
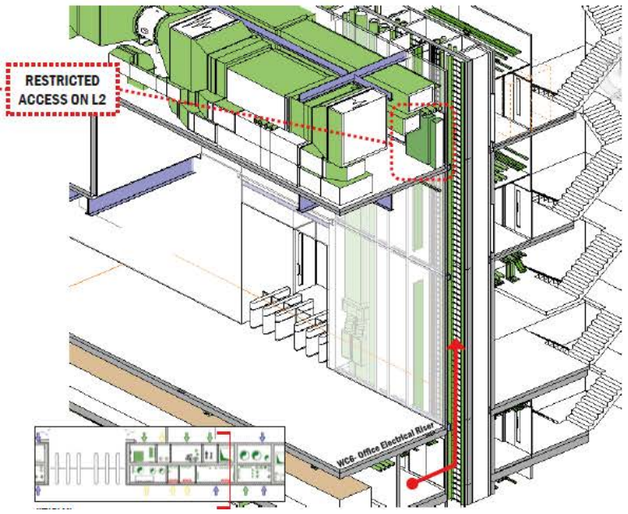
11.0	**Plant, plantrooms services + riser access and Maintenance strategy**	11.1.a Access • Some risers through west and east cores will require regular access. Where facing onto the double height offi ce reception areas a solution to access these through the cardboard tube feature lining is required • The east reception is located above the waste store which for waterproofi ng reasons will not be accessible at gyratory level. This means access is currently restricted from L01-B1 • Option 1; Demountable cardboard tubes fixed to backing panel. Tubes to be robust enough to handle being demounted by operatives Option 2; Ladders installed within risers. Operative can access riser at level above / below and climb through. Space restrictions make this option less feasible. Mansafe required.		✓
		11.2.b		

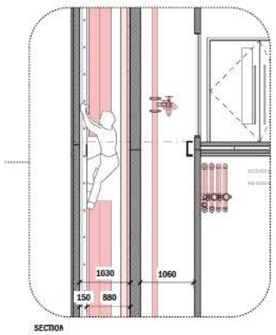


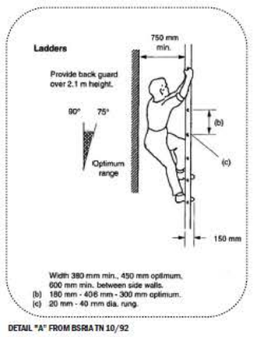
Illustrative view of the cardboard tube feature lining











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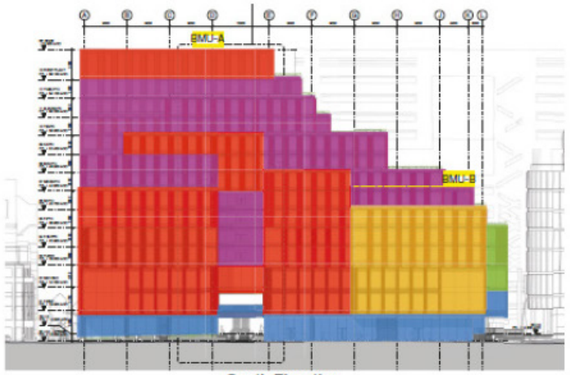
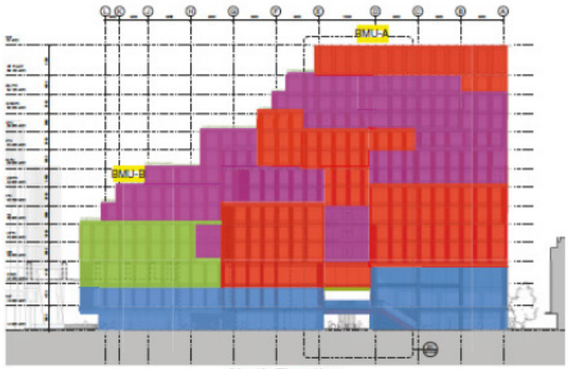
12.0	**Facade access, window cleaning and glass replacement strategy**	12.1.a **Maintenance - Long Pole** • All other areas will be accessed directly from terraces or the ground • This will require 12m long pole access for cleaning	Action Owner	✓
		12.2.b **Operation time** • The surrounds will be busy with pedestrian activity; where possible access times to be considered to avoid disruption. Building Manager to arrange facade access/maintenance • Restricted zones below BMU cradle, MEWP or workers with long pole to be set up	Client/ FM	✓
		12.3.c **Glass replacement** • Various options for glass replacement currently being explored	AHMM	✓
		12.4.d		

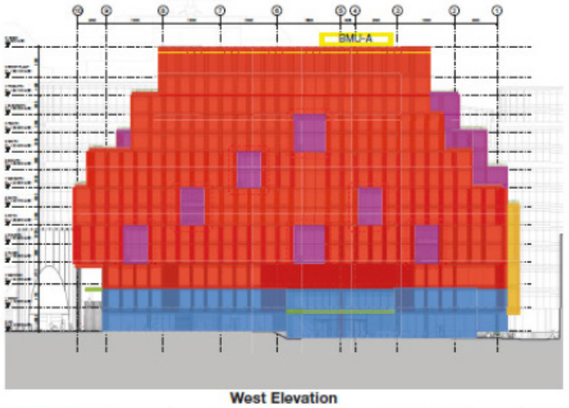
Working at height, lifting heavy objects



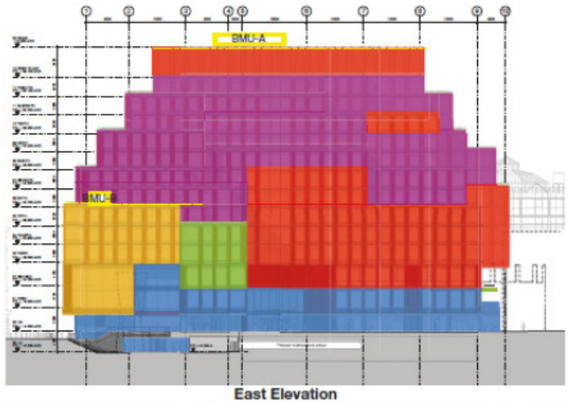
South Elevation



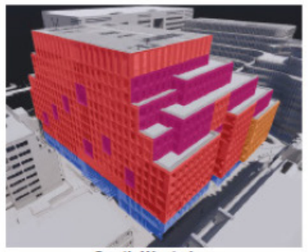
North Elevation

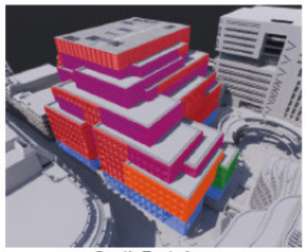


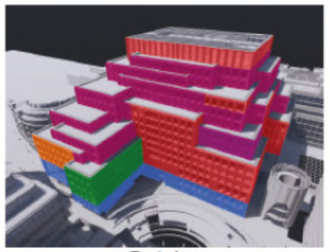
West Elevation

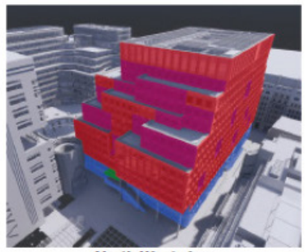


East Elevation


South West view


South East view


East view


North West view

Key - Facade Access & Maintenance

- BMU location
- Access via BMU-A
- Access via BMU-B
- Access via MEWP
- Access from terraces
- Access direct from ground

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13.0	**Phasing strategy** (e.g. site, construction, occupation, etc.)	13.1.a **Phasing of Construction** Plan to the left shows the proposed construction phasing diagram for the scheme.	Client	

13.2.b

1) Building A

Building A would be first in the construction sequence in order to enable Budgens to reoccupy their space for business operation at the earliest convenience (18months after demoliton works)

13.3.c

2) Building C

Building C should be next, as the cinema c be built to also enable business operation commence at the earliest convenience.

13.4.d

3) Building D substation

The substation to be housed by Building D would need to be installed at the earliest convenience to power aspects of the adjacent site

4) Building B

5) Building D

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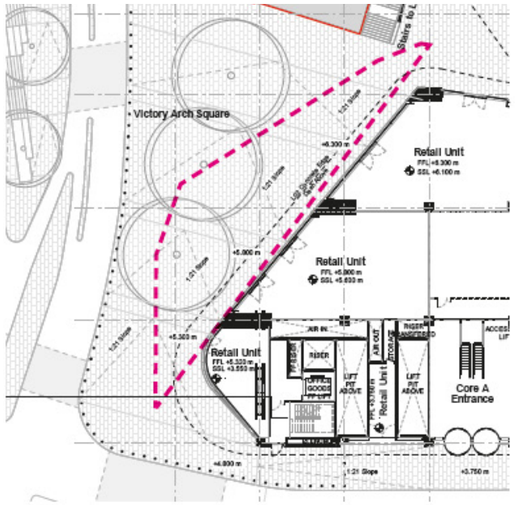
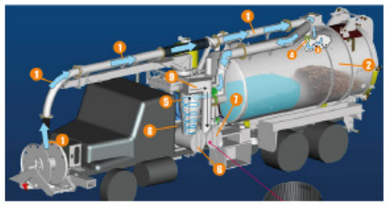
14.0	**Miscellaneous issues** (e.g. landscaping, wellbeing, Workplace Regulations etc.)	14.1.a Number, location, size and type of access points to comply with the Confined Spaces Regulations 1997.	Sweco	
		14.2.b Prevent water ingress when people are working in the tank – Water diversion directly to the sewer? Compartmentalisation of the tank?	Sweco	
		14.3.c Detailed strategy for residues removal required – size and parking location for the vacuum pump unit, hose size and coverage.	Sweco	
		14.4.d Suitable ventilation and lighting to be provided.	Sweco	
		etc.		

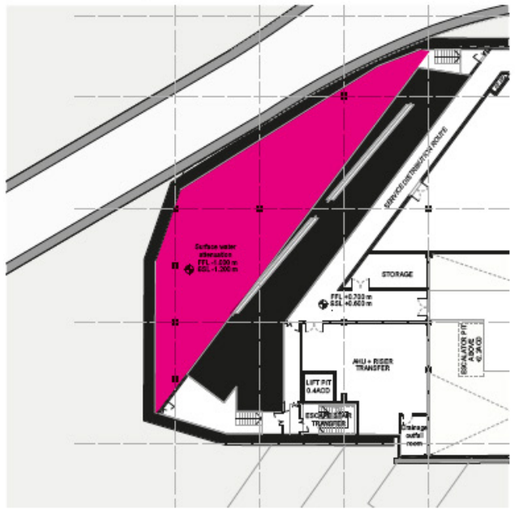


Tank below - ground floor plan

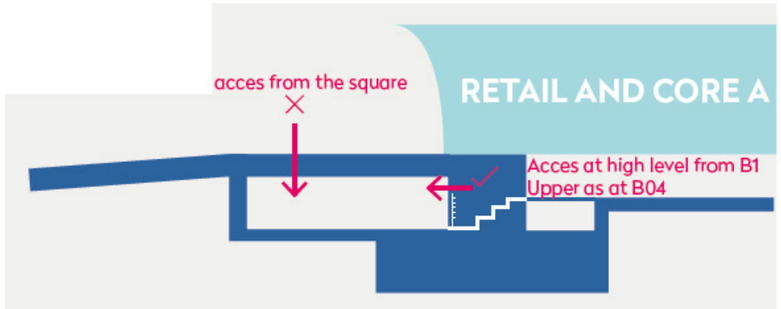
Access from above - example

Vacuum truck - example





Tank location in the basement



Access options

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15.0		15.1.a	Action Owner	
	(Insert Drawings / Images / Photos / Sketches / Annotations)	15.2.b		
		15.3.c		
		15.4.d		
		etc.		

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5.0 Health & Safety File (CDM5)

Content Guidance

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. 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.

If Principal Designer

The principal designer must prepare the health & safety file. But this is primarily a coordination role and the PD must expect the cooperation of the rest of the project team including the Principal Contractor and the Client team. This is to ensure that the structure and content are agreed early and who should provide the relevant information and to what programme.
Progress of the file should commence from start on site and be checked regularly at Design Team and Progress meetings using this tracker or other suitable means.

If Designer

Where it is not possible to eliminate health and safety risks when preparing or modifying designs, designers must ensure appropriate information is included in the health and safety file about the reasonably practicable steps they have taken to reduce or control those risks.

Content (Ref. CDM 2015 - L153 Appendix 4)	**Notes / Comments /Action required**	Completed ✓ Required x
1. Brief description of work carried out	AHMM to provide	✓
2. Any hazards that have not been eliminated	All	x
3. Key structural principles	Structural Engineer to provide	
4. Hazardous material used	All	
5. Information regarding the removal or dismantling of installed plant and equipment	Services Engineer to provide	
6. Information about equipment provided for cleaning or maintaining the structure	All	
7. The nature, location and markings of significant services	Services Engineer to provide	
8. Information and as-built drawings of the building, its plant and equipment	Last Contract / Construction issue	
9. Project specific additional information	e.g. Fire Strategy information	

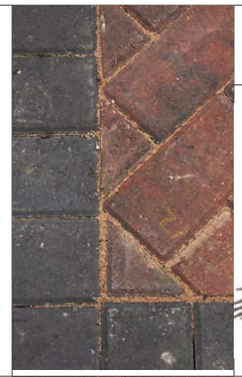
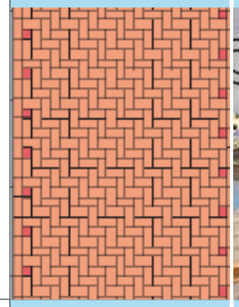
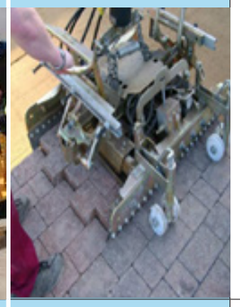
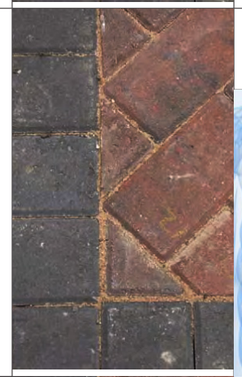
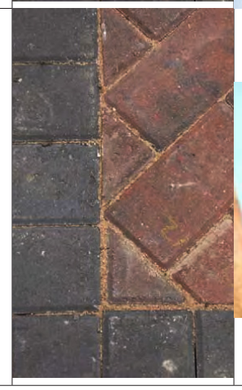
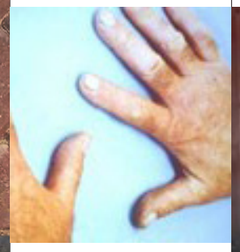
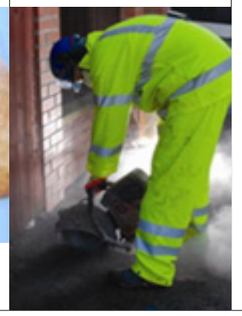
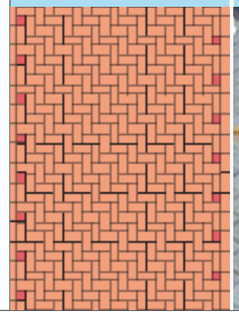
6.0 Design Risk Management - CDM Procedures for Project Teams (CDM6)

Design Phases		Pre-Construction /All Design Phases						Construction Design Phase
RIBA Stages		0 1 2 3	1 2 3 4	1 2 3 4	0 1 2 3 4 5 6	0 1 2 3 4 5 6	4 5 6 7	
	ACTIONS	IDENTIFY	QUANTIFY	CLARIFY	NOTIFY	MODIFY	DELIVER	
A	Procedures to Action	**CDM Strategy Brief** Identify the Strategic CDM issues, scope briefing, timescales, team appointments, client H&S adviser, lead contacts, etc **CDM1**	**With Client initiate additional surveys** of site and existing buildings and surroundings. Use **CDM2 initially as aide-memoire. Design concept** being developed in drawings & stage reports	Capture all **foreseeable significant** site and design CDM strategic buildability, & maintainability issues in relation to **other important design risk & reward/ benefit factors CDM4**	Keep project team informed of survey & design development information and actions required. **CDM2** Check client has issued the **F10** to HSE as early as reasonable before construction starts	Project Team to advise on changes from their discipline and discuss how this affects the whole project at **DTM's, CDM4 and update drawings**	At Tender stage Issue **(PCI) Full CDM Document** At Start on Site commence **H&S File CDM5** At Completion stage Issue Full Health & Safety File **CDM5**	
B	Agree Significant CDM Issues	**Initial Key Issues**	**Selection of Key Issues**	**Review & Discuss**	**Regular Updates**	**Change Control**	**Information Flow**	
		Collate relevant, significant, foreseeable CDM Issues from existing H&S File, site surveys **CDM2**, early design & construction risks. **CDM3** Check Particular Risks Schedule 3 L153	**Add all new Relevant Survey information** into Tracker template **CDM2, and add** **Significant CDM design issues**, **(not generic normal issues) CDM3** Multi-factorial / dimensional issues only	Review & discuss complexity of each "Significant issue" with **other issues** by team input and discussion at meetings. **Agree Tolerability of Risks CDM4**	Version control of changes to design information ; important to focus on key issues. Highlight changes eg. Use coloured text. **All CDMs**	As scheme develops it will evolve and issues change. This needs to be managed by PD. Contractor input also required. **Project change notices.** **Update Strategy Brief CDM1**	Update **CDM Document** Produce comprehensible information at each stage, especially major workstage gateways.	
C	Analysis & Communication	**Visually on Drawings**	**Visual Highlighting**	**CDM Analysis visually**	**Track Significant Issues**	**Visual Communication**	**Visual Risk Pathways**	
		Identify "issues" by hand on **GA's**, sketches or capture in early BIM model. Use collaborative workshop methods with full project team	Show "issues" **on drawings** Cross relate site issues to survey tracker. **CDM2**	Inc. drawings, sketches & photos of **buildability** into CDM Analysis **CDM4** All multi-dimensional issues to be considered in full project context **NOT** just Health & Safety.	Use a simple risk register tracking document to form an index & summary of the Analysis documentation. Referenced to drawings/GA's with symbols. **CDM3 & GA's**	All CDM document to be circulated to team and displayed on visual display screens at meetings to facilitate informed discussion on changes. **PCI- All CDMs**	Refer to CDM Analysis for design rationale before making changes especially if Value Engineering. **CDM3 & 4 with drawings**	
D	Recording & Templates	**N⁰. Significant Issues**	**Concept Schedule**	**Capture Analysis**	**Issue CDM Analysis**	**CDM Analysis updates**	**Annotate Drawings**	
		Number the Significant site & design issues in **BIM** or by hand on sketches or drawings and develop the **Significant CDM Issues Schedule CDM3**	Capture a simple list of "issues" for team discussion, location and quantification. Eg. use **HARI Checklist**, IOSH Toolkit, or HSE RAG lists. **CDM3** **Avoid normal routine construction risks.**	Use CDM Analysis and Options Matrix to **capture complexity**, options, proposed solutions, notes and actions. Also a future record of key decisions. **CDM4**	Full CDM document to be issued to all Design Team on a regular basis as updated from workshops or meetings. **All CDMs 1-6** All team members to respond where they are action owners. **All**	Changes and design development issues to be recorded in Schedule **CDM3** and Analysis updated **CDM4**, & issued by PD. Contractor changes to also be reviewed.	All remaining significant issues are **referenced and noted** on project drawings. Develop Analysis document **CDM4** if more detailed analysis is required.	
E	Agree Time, Fees & Meetings	**Agree resources**	**Focus on Key issues**	**Regular CDM reviews**	**CDM Meetings Output**	**Feedback changes**	**H & S File Tracker**	
		CDM Fees to be clear in the appointment, inc. reviews, Client & project meetings, Gateways, workstages. **PD Fee Proposal & client awareness letter** **Client** to appoint PD & all consultants	Apply **Principles of Prevention** as App. 1 (L153). RAG **tolerability status** to be attributed to each issue in CDM Risk Register. **CDM3** Consider issues proportionately as qualified by **SFARP.**	Discuss Key issues at **DTM's** Hold **CDM catch-ups & reviews** when necessary using screens, documents & trackers. **All CDM's**	CDM discussion to be captured in minutes of meetings, sketches or annotated drawings. Visual display screens to be used to display complex **CDM4 Analysis.**	Any changes, discovery or developments to be fed back from and to each team to modify drawings, reports and analysis. **All CDMs**	From the Start on Site the compilation of the **H & S File** needs to be commenced. Use Template **CDM5.**	
F	Collaborative working	**Design team members**	**Design Team Mtg's**	**Team input**	**Team risk analysis**	**All Design Changes**	**Health & Safety File**	
		Identify Design Team and hold initial meeting. **Issue** all CDM strategy information to project team. Request Consultant contributions **CDM1, 2, 3**	Significant CDM issues to be **discussed with normal agenda** in Design team Meetings and outcomes recorded. **DTM notes**	**Buildability, maintainability & usability?** Early specialist engagement is desirable e.g. Contractors & Subcontractors. **DTM & Workshop Discussions**	All design team members to contribute their significant project CDM issues to PD for inclusion into Analysis. **CDM3 & 4**	All design changes to be implemented by designers & PD in updates to CDM documentation an coordinated drawings. **All CDMs & Drgs.**	All team members to contribute to H&S File document during design and construction stages as Appx. 4 (L153) Pre-handover. **CDM5**	
		U	V	W	X	Y	Z	

CDM1- CDM Strategy Brief • **CDM2** - Survey Tracker • **CDM3** - Schedule of Significant issues • **CDM4** - CDM Analysis & Options • **CDM5** - H&S File Tracker & Document Format
Red Text - Denotes Actions **PCI** - Pre-Construction (Design) Information **L153** - CDM 2015 Regs & Guidance ***Project Team** - includes Client, PM, Consultants and Contractors

Use these boxes on smaller or simpler projects

7.0 CDM Health Issues Matrix (CDM7)

Ref No:	Significant CDM Issues identified visually (BUT only Health issues that are not normal, generic, routine, or trade specialist related) 1. Eliminate or avoid Risks (during early design stages) SFARP (so far as reasonably practicable). 2. Reduce or minimise Risks (during all design stages and include a safety system of work) ALARP (as low as reasonably practicable). 3. Provide further information with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. Track action owner and status				Design Mitigation Methods					Design Risk Action & Status Not tolerable Ongoing Tolerable
BLOCK PAVIORS		Type of Risk	People affected	Eliminate or use	Option 1	Option 2	Option 3	Project Information	Further Information	
7.1		Musculo-Skeletal injuries 	Operatives	Eliminate X or Use ✓	Reducing size of units or elements 	Use of Machines 	Smaller Machines 	Access, size of project and duration for mechanisation will dictate the methods chosen. Small refurbishments may not justify the use of large plant.	HSE Research Report (man holding back image)	Action Owner
7.2		Respiratory Risks during cutting. 	• Operatives • Other workers • Site staff • Neighbours • Public	Eliminate X or Use ✓	Minimise cut blocks in paving pattern 	Ensure dust suppression 	Containment, suppression etc 	On site availability of suitable cutting equipment and containment to cutting areas is essential	HSE Research Report RR878 -Respiratory issue report 	Action Owner
7.3		Hand arm vibration during cutting. 	Operatives 	Eliminate X or Use ✓	Use special blocks 	Use block splitter 	Use non-vibrating cutters 		HSE Research Report RR878 -Respiratory issue report 	Action Owner

Project: 00000 Name of Project			Date: XX Month Year		Design Stage: Workstage (Name)		Revision No: 123			
Team Consultees	Client		Architect	AHMM	Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

Ref No:	**Significant CDM Issues identified visually** **(BUT only Health issues that are not normal, generic, routine, or trade specialist related)** **1. Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). **2. Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). **3. Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. **4. Track action owner and status**				**Design Mitigation Methods**					**Design Risk Action & Status** Not tolerable Ongoing Tolerable
BLOCK PAVIORS		**Type of Risk**	**People affected**	**Eliminate or use**	**Option 1**	**Option 2**	**Option 3**	**Project Information**	**Further Information**	
				Eliminate X **or** **Use** ✓						**Action Owner**

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

Appendix A

Particular Risks

The miscellaneous other 'Significant CDM issues' should consider the following extract from L153 Schedule 3 Regulation 12(2):

Particular Risks *	Notes / Comments / Action required	Included ✓ / Excluded x
1. Work which puts workers at risk of burial under earth falls, engulfment in swampland or falling from a height, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or site.		✓
2. Work which puts workers at risk from chemical or biological substances constituting a particular danger to the safety or health of workers or involving a legal requirement for health monitoring.		x
3. Work with ionizing radiation requiring the designation of controlled or supervised areas under regulation 16 of the Ionising Radiations Regulations 1999.		
4. Work near high voltage power lines.		
5. Work exposing workers to the risk of drowning.		
6. Work on wells, underground earthworks and tunnels.		
7. Work carried out by divers having a system of air supply.		
8. Work carried out by workers in caissons with a compressed air atmosphere.		
9. Work involving the use of explosives.		
10. Work involving the assembly or dismantling of heavy prefabricated components.		

* Note - if these are present they must be reflected in the significant CDM Issues Schedule and Construction Phase Plan

Allford Hall Monaghan Morris Ltd Architects. www.ahmm.co.uk
Morelands, 5-23 Old Street, London EC1V 9HL T: 020 7251 5261

Appendix B

GA Drawings with significant CDM Issues located

Appendix C

Other Consultants Risk Analysis Information

Appendix D

Workplace health, safety and welfare

The miscellaneous other 'Significant CDM issues' should consider the following extract from Workplace health, safety and welfare:

Regulations	Particular Risks *	Notes / Comments / Action required	Included ✓ / Excluded X
3	Application of these Regulations		✓
3a	Means of transport		X
3b	Construction sites		
3c	Temporary work sites		
4	Requirements under these Regulations		
4a	Modifications, extensions and conversions		
4b	Stability and solidity		
5	Maintenance of workplace, and of equipment,devices and systems		
6	Ventilation		
7	Temperature in indoor workplaces		
7a	Thermal insulation		
7b	Solar radiation		
7c	Harmful or offensive fumes		
8	Lighting		
9	Cleanliness and waste materials		
10	Room dimensions and space		
11	Workstations and seating		
12	Condition of floors and traffic routes		
13	Falls or falling objects		
14	Windows and transparent or translucent doors, gates and walls		
15	Windows, skylights and ventilators		
16	Ability to clean windows etc safely		
17	Organisation etc of traffic routes		
17a	General requirements for traffic routes		
17b	Separation of people and vehicles		
17c	Crossings		

Regulations	Particular Risks *	Notes / Comments / Action required	Included ✓ / Excluded X
17d	Loading bays		
17e	Signs		
18	Doors and gates		
19	Escalators and moving walkways		
20	Sanitary conveniences		
21	Washing facilities		
21a	Minimum numbers of facilities		
21b	Remote workplaces and temporary work sites		
21c	Ventilation, cleanliness and lighting		
22	Drinking water		
23	Accommodation for clothing		
24	Facilities for changing clothing		
25	Facilities for rest and to eat meals		
25a	Disabled persons		
25b	Facilities for pregnant women and nursing mothers		
25c	Preventing discomfort caused by tobacco smoke		
27d	People with disabilities		

* Note - if these are present they must be reflected in the significant CDM Issues Schedule and Construction Phase Plan

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Project Name

CDM Analysis Report, Stage X

Version No, DD Month YYYY

DRAFT

Document Control

Job Title:	- - - - -
Job number:	00000
Report title:	Report 01
Report number:	R000
Revision:	00
Date of issue:	00 Month 0000
Purpose of issue:	- - - - -
Compiled by: (Name/ Company)	Forename Surname - . Architects Forename Surname - Consultant
Reviewed by: (Name, Company)	Forename Surname - AHMM Architects
Authorised for issue by: (Associate Director/Associate)	Forename Surname - AHMM Architects
Date reviewed:	00 Month 0000
Date authorised for issue:	00 Month 0000
File name/ Location	

Note
This document is prepared for the sole use of our client for the respective project and no liability to any other persons is accepted by

Contact details
(Project Architect name)
(Project Architect email)

CDM Analysis Report including Pre-Construction Information (PCI)

DRAFT

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Indesign formatting guidance for this toolkit

Introduction

Brief project description
Please overwrite or delete

Guidance for working with the CDM Tool Kit

(switch off 'Markup & Notes' layer prior to issuing)

Aim of this document
The CDM Toolkit process is aimed to ensure that all relevant CDM issues are captured within the design where we are Principal Designers and Designers. This process demonstrates commitment to good design and for compliance with CDM regulation 2015 as Principal Designers and Designers, and to achieve well designed projects.

What is the 'CDM Toolkit'
The CDM templates must be set up as early as possible when ..... is appointed as a Designer or Principal Designer for a project. The templates should be used along side regular meetings with updates and management of the design process until the handover. This process is called the 'CDM Toolkit' consisting of the various templates used independently and collectively.

Appointing of a CDM Champion
A CDM champion must be appointed at an early stage of the project within the ..... team. He/She will be responsible for setting-up, issuing and updating the CDM templates and attending the regular meetings
(reviews/ catch-ups) with the CDM team or with the external Principal Designer(depending on the appointment). The CDM champion should arrange for regular CDM coordination meetings with the project team if ..... is appointed as a Principal Designer.

Meetings (reviews/catchups)
Using templates it is required to have regular meetings with the in-house CDM team. Each meeting will be documented by the CDM team using the 'CDM review report'. The frequency of meetings to be agreed with the CDM team and Technical team co-ordinator at the early stages of the project.

CDM toolkit as Principal Designer
The toolkit process will reflect the CDM issues within the template and should capture issues identified during coordination with other appointed consultants on the project.

CDM toolkit as Designer
The toolkit process will reflect the CDM issues within the template relevant to our design and to be shared with the external Principal Designer.

For detailed procedures see CDM6.

Understanding the ‘CDM Toolkit’

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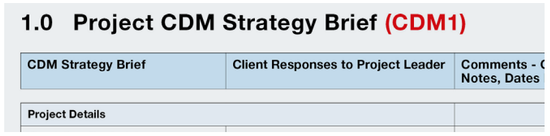
Documents

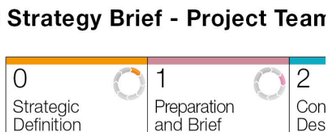
1.0 Project CDM Strategy Brief (CDM1)

The template informs project details and client management arrangements, setting a background for the CDM strategy. Should be regularly reviewed and updated by the entire team.



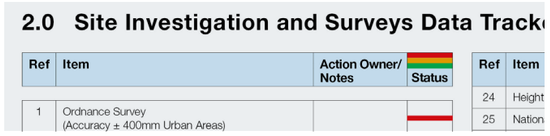
1.0 Project CDM Strategy Brief - Project Team Timeline (CDM1a)

xyz.



2.0 Site Investigation and Survey Data Tracker (CDM2)

Identify the relevant surveys/data required for the project. The requested/ received information should be tracked using the template. Should be regularly reviewed and updated by the entire team.

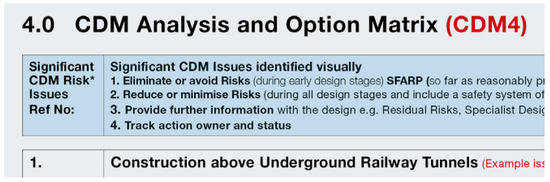


3.0 Schedule of ‘Significant CDM issues’ (CDM3)

The project significant CDM issues briefly captured in an executive summary within this template with a reference number, that relates to the BIM environment or General Arrangement drawings.

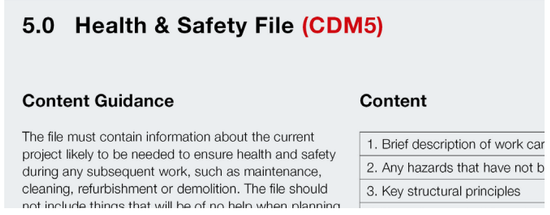
4.0 CDM Analysis and Option Matrix (CDM4)

This template will inherit the CDM issue numbering from CDM3. The CDM issues to be explained visually using sketches/drawing/pictures based on the parameters within the template. The template should also include text explaining the issue and reference to relevant documents, brief, drawings and future drawings.



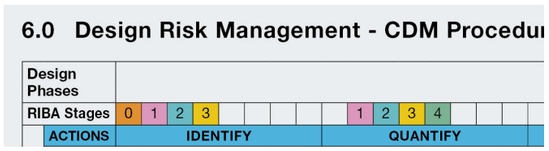
5.0 Health & Safety File and Tracker (CDM5)

The template is a coverpage to the H&S file documents which informs a table of content, information status and guidance. The folder structure is saved within the project folder and should be populated throughout the design process by the entire team. The information collated along with the coverpage to be handed over to the client upon completion of our appointment, or to the contractor if not PD during construction.



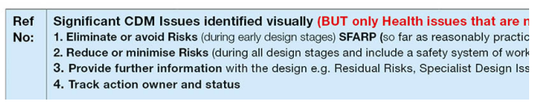
6.0 Design Risk Management - CDM Procedures for Project Teams (CDM6)

Please specify



7.0 CDM Health Issues Matrix (CDM7)

Please specify



Appendix A

Particular Risks

Appendix B

Other Relevant drawings to be marked using CDM symbols.
ie: GAs, Elevations, Sections, etc.

Appendix C

Other Consultants Risk Analysis Information

Appendix D

Workplace health, safety and welfare

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1.0 Project CDM Strategy Brief (CDM1)

CDM Strategy Brief	Team Responses to Project Leader	Comments - Contact details, Notes, Dates Reviews etc.	X ✓
Project Details			
Description of project / outline scope of works.			X
Address/location/environment of site.			✓
Client Brief / Outline CDM Scope			
Operational requirements (e.g.any existing activities to remain e.g. Occupation, Manufacture etc)			
H&S expectations of client (if above Statutory requirements)			
H&S file -format & index (if different to Appendix 4 L153) of future file			
Project Timescales (what are the key stages and how long will they run for?)			
RIBA Stage 0 - Strategic Definition			
RIBA Stage 1 - Preparation and Brief			
RIBA Stage 2 - Concept Design			
RIBA Stage 3 - Developed Design			
RIBA Stage 4 - Technical Design			
RIBA Stage 5 - Construction			
RIBA Stage 6 - Handover & Close Out			
RIBA Stage 7 – In Use			
Commission/ handover/ H & S File			
Clarify at which of the above stages are you starting the CDM/Principal Designer process			
Is there any pre-existing CDM Analysis, risk register, H&S file or relevant information & where?			
Strategic Risks (what are the significant or unusual site H&S risks or client requirments)			
Work involving Particular Risks - Refer to L153-Schedule 3 (eg: offsite manufacture, large PC panels, working over water etc). See Appendix A			

CDM Strategy Brief	Team Responses to Project Leader	Comments - Contact details, Notes, Dates Reviews etc.	X ✓
Strategic Design Intent and associated risks (e.g. Major temporary works, Stability considerations, unusual site constraints & logistics occupation on site).	(Project specific brief comments eg. Atrium essential, Public use of roof, Building over water, etc)	(Any significant suggestions, recommendations, actions.)	
Project Leadership			
Client	Lead Contact and Organisation	Email	
Project Manager	Lead Contact and Organisation	Email	
Principal designer	Lead Contact and Organisation	Email	
Principal contractor	Lead Contact and Organisation	Email	
Cost Consultant- QS	Lead Contact and Organisation	Email	
Architects	Lead Contact and Organisation	Email	
Designer 1 (eg: Structural)	Lead Contact and Organisation	Email	
Designer 2 (eg: Services)	Lead Contact and Organisation	Email	
Designer 3 (eg: Landscape) etc.	Lead Contact and Organisation	Email	
(Continue as required) (Others).	Lead Contact and Organisation	Email	
Procurement Strategy			
Approx. Contract Sum/Anticipated Project Cost (if known)			
Form of Contract (if agreed)			
Communication Strategy			
Team meetings anticipated, number, frequency, length, location etc. at each workstage. DTMs, CDM, Client etc	Will CDM issues be considered at each DTM? or will dedicated meetings be required? Or both?		
Design Team Induction Process for CDM	(Strategy Brief for new design team members.)		
Visual tools, drawings, analysis documents, reviews essential from all.	(Relevant drawing, images, photos to be included in CDM report.)		
Use of BIM for Health & Safety			
Health and Safety File Status (PD Update of DTMs or Progress Meetings)			
Client Duties			
F10 to be issued			
Provide PCI to team			

X – Information required ✓ – Information received

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

DRAFT

CDM Strategy Brief	Team Responses to Project Leader	Comments - Contact details, Notes, Dates Reviews etc.	X ✓
Welfare facilities + Site establishment	Assist Client and Principal Contractor with Site Drawings		
Construction phase plan prepared before construction commences	Assist Client and Principal Contractor		

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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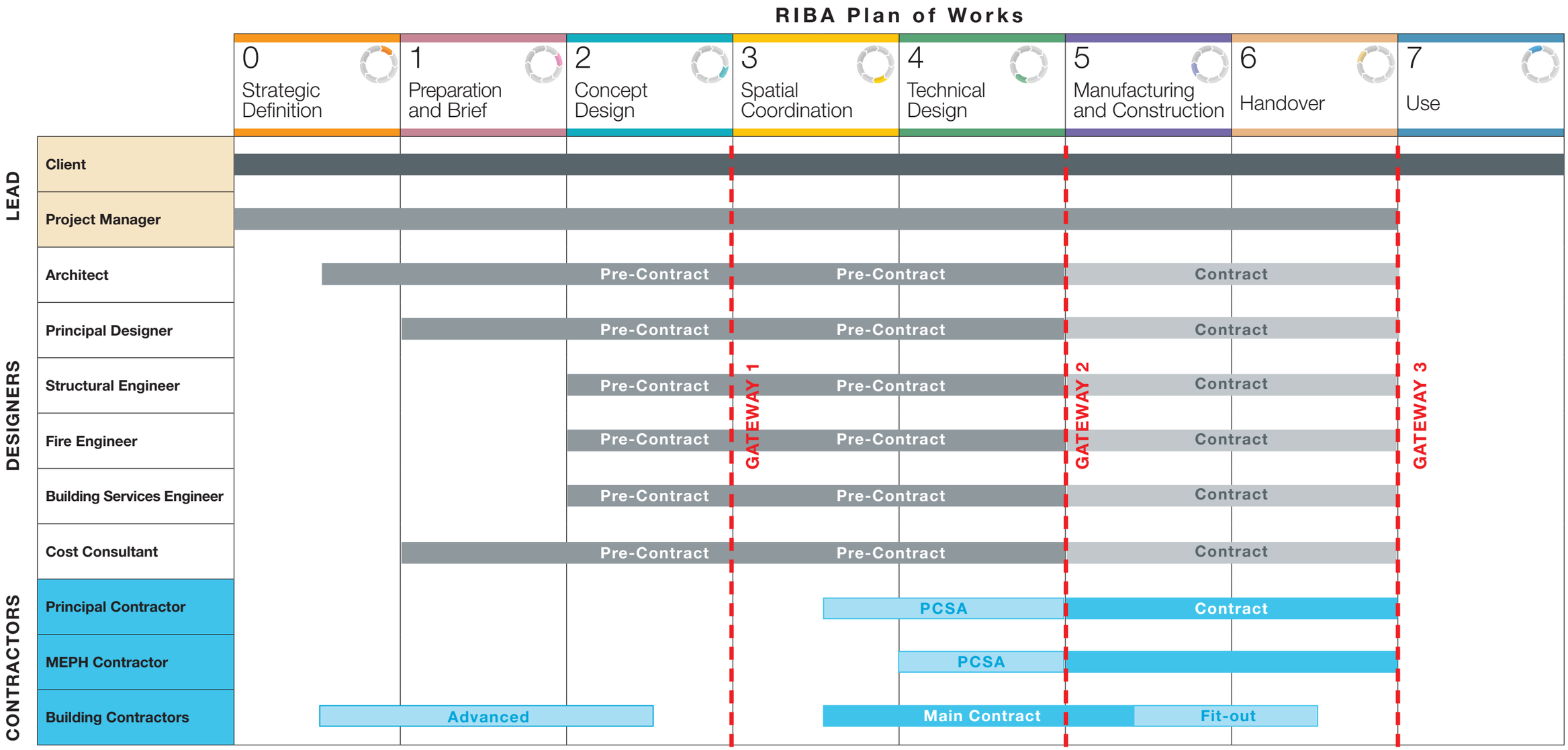
1.0 Project CDM Strategy Brief - Project Team Timeline (CDM1a)



Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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2.0 Site Investigation and Surveys Data Tracker (CDM2)

Ref	Item	Action Owner/Notes	Status
1	Ordnance Survey (Accuracy ± 400mm Urban Areas)		
2	Historical Maps		
3	Existing Record Drawings from Client		
4	Drawings (List of Drawings or refer to a Schedule of Drawings)		
5	Existing Health & Safety File (CDM) from Client (Buildings completed or altered since 1995)		
6	Services/Utilities/Statutory Authorities (Location and Capacities) possible diversions and or need for new infrastructure e.g. sub-station. *(Gas/water/electricity/ Sewers/Telephone/ Cables/ Drainage condition)* Note: PAS 128:2014 Survey Type A		
7	PTAL (Public Transport Accessibility Level) Rating		
8	Other Town Planning Applications		
9	Asbestos (Demolition/ ground)		
10	Aerial Photographs		
11	Historic Photographs		
12	Underground Features (Tunnel/Mining/Fracking)		
13	Boundaries / Land Ownership		
14	Land Registry Plan		
15	Ownership Deeds/Easements /Covenants		
16	Rights of Way		
17	Party Wall Matters		
18	Rights of Light		
19	Listed Building – Historic England Listing Description		
20	Local Development Framework		
21	Land Use Zones		
22	Conservation Areas		
23	View Corridors to Landmarks		
24	Height Restrictions		
25	National Parks		

Ref	Item	Action Owner/Notes	Status
26	Areas of Outstanding Natural Beauty (ANOB)		
27	Green Belt		
28	Refuse Collection Strategy		
29	Sites of Special Scientific Interest (SSSI)		
30	Local Byelaws		
31	Topographic Survey - Measured Survey/Land Survey – Features		
32	Laser Survey/ Sub scan Survey/ Cloud		
33	Structural Survey / Condition Survey		
34	Transport Survey		
35	Parking Survey		
36	Archaeology		
37	Desktop Study/ Photographic survey/ Initial site visit report		
38	Excavations/ Burial site survey		
39	Noise/Acoustic Survey		
40	Air Quality Survey		
41	Arboriculture (Tree) Survey – Tree Preservation Orders/Clay Shrinkage/ Clay Heave/Root Protection Zones Note: BS 5837 (2012)		
42	Ecological Survey (protected species/ bat roosts/snails/slow worms)		
43	Environmental Assessment Survey		
44	Flood Risk Assessment		
45	Geotechnical Survey (bore holes/trial pits- existing features and foundations)		
46	Contamination (Pathogens/Anthrax/ VOC's/Radon/Methane)		
47	Lead Paint Survey		
48	Unexploded Ordnance (UXO) Report		
49	Quality of incoming water		
50	COMAH Regs 2015		
51	*Other relevant Survey Information		

Status Key

- Information required
- Requested surveys
- Information received

Note - This survey tracker is for reference purposes only and should not be considered as a record of survey information or revisions. Responsibility sits with relevant consultants for advising the client of surveys required to carry out their design services and for keeping an up-to-date record of latest survey information.

* This list is not necessarily comprehensive

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Ref	Item	Action Owner/Notes	Status

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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3.0 Schedule of Significant CDM Issues (CDM3)

Significant Risk/ Issue No.	Significant CDM Issues/ Description of Significant Risk* Generic issues to be avoided	Mitigation, Control Measures or further information 'So far as in reasonably practicable' (SFARP)	Design Issues Status Not tolerable / Ongoing / Tolerable
1.0	**Site Environs and Site Establishment Strategy** (incl. local features, transport corridors, pedestrian flow, welfare provisions, vehicular access, site storage, unloading, cranage etc)		AHMM
			ABC
2.0	**Site Enabling Strategy** (incl. demolitions, de-contamination, remediation, temp. works etc.)		
3.0	**Existing Building and Services Strategy** (incl. above and below ground features, adjoining properties, party wall issues etc)		
4.0	**Structural Works Strategy** (incl. permanent, temporary & demolition requirements)		
5.0	**Heavy Component Movement Strategy** (incl. large, heavy and awkward components, method of vertical and horizontal movement for delivery storage & placement)		
6.0	**Off-site & On-site Manufacturing and Assembly Strategy** (incl. prefabricated, modular, hand installed etc)		

*** Significant risks** not necessarily those that involve the greatest risks, but those (including health risks) that are not likely to be obvious, are unusual, or likely to be difficult to manage effectively (Ref. CDM 2015 L153).

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Significant Risk/ Issue No.	Significant CDM Issues/ Description of Significant Risk* Generic issues to be avoided	Mitigation, Control Measures or further information 'So far as in reasonably practicable' (SFARP)	Design Issues Status Not tolerable / Ongoing / Tolerable
7.0	**Safe working at height strategies** (e.g. significant roof access, high ceilings, etc.)		
8.0	**Health Strategy** (eg: excessive, dust, MSD, HAV, noise minimisation etc.)		
9.0	**Plant & Services design and installation strategy** (e.g. location and construction issues)		
10.0	**Plant Replacement strategy** (e.g. future access issues)		
11.0	**Plant, plantrooms services + riser access and Maintenance strategy**		
12.0	**Facade access, window cleaning and glass replacement strategy**		
13.0	**Phasing strategy** (e.g. site, construction, occupation, etc.)		
14.0	**Fire Strategies for Construction and In-Use Stages**		
15.0	**Miscellaneous issues** (e.g. landscaping, wellbeing, Workplace Regulations etc.)		

*** Significant risks** not necessarily those that involve the greatest risks, but those (including health risks) that are not likely to be obvious, are unusual, or likely to be difficult to manage effectively (Ref. CDM 2015 L153).

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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4.0 CDM Analysis and Option Matrix (CDM4)

Significant CDM Risk* Issues Ref No:	**Significant CDM Issues identified visually** **1. Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). **2. Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). **3. Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. **4. Track action owner and status**	**Design Control Methods** Brief comments, Guidance for future Actions etc	**Design Risk Action & Status** Not tolerable Ongoing Tolerable
1.0	**Site Environs and Site Establishment Strategy**	1.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	1.2	
		1.3.	
		1.4.	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
2.0	**Site Enabling Strategy**	2.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	2.2	
		2.3	
		2.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
3.0	**Existing Building and Services Strategy**	3.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	3.2	
		3.3	
		3.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
4.0	**Structural Works Strategy**	4.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	4.2	
		4.3	
		4.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
5.0	**Heavy Component Movement Strategy**	5.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	5.2	
		5.3	
		5.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

DRAFT

Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
6.0	**Off-site & On-site Manufacturing and Assembly Strategy**	6.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	6.2	
		6.3	
		6.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

DRAFT

Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
7.0	**Safe Working at Height Strategy**	7.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	7.2	
		7.3	
		7.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

DRAFT

Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
8.0	**Health Strategy**	8.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	8.2	
		8.3	
		8.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

DRAFT

Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
9.0	**Plant & Services Design and Installation Strategy**	9.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	9.2	
		9.3	
		9.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

DRAFT

Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
10.0	**Plant Replacement Strategy**	10.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	10.2	
		10.3	
		10.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
11.0	**Plant, Plantrooms Services + Riser Access and Maintenance Strategy**	11.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	11.2	
		11.3	
		11.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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12.0	**Facade Access, Window Cleaning and Glass Replacement Strategy**	12.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	12.2	
		12.3	
		12.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
13.0	**Phasing Strategy**	13.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	13.2	
		13.3	
		13.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Significant CDM Risk* Issues Ref No:	Significant CDM Issues identified visually 1. **Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). 2. **Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). 3. **Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. **Track action owner and status**	Design Control Methods Brief comments, Guidance for future Actions etc	Design Risk Action & Status Not tolerable Ongoing Tolerable
14.0	**Miscellaneous Issues**	14.1	Action Owner
	(Insert Drawings / Images / Photos / Sketches / Annotations)	14.2	
		14.3	
		14.4	
		etc.	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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5.0 Health & Safety File (CDM5)

Content Guidance

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. 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.

If Principal Designer

The principal designer must prepare the health & safety file. But this is primarily a coordination role and the PD must expect the cooperation of the rest of the project team including the Principal Contractor and the Client team. This is to ensure that the structure and content are agreed early and who should provide the relevant information and to what programme. Progress of the file should commence from start on site and be checked regularly at Design Team and Progress meetings using this tracker or other suitable means.

If Designer

Where it is not possible to eliminate health and safety risks when preparing or modifying designs, designers must ensure appropriate information is included in the health and safety file about the reasonably practicable steps they have taken to reduce or control those risks.

Content (Ref. CDM 2015 - L153 Appendix 4)	**Notes / Comments /Action required**	Completed ✓ Required x
1. Brief description of work carried out	AHMM to provide	✓
2. Any hazards that have not been eliminated	All	x
3. Key structural principles	Structural Engineer to provide	
4. Hazardous material used	All	
5. Information regarding the removal or dismantling of installed plant and equipment	Services Engineer to provide	
6. Information about equipment provided for cleaning or maintaining the structure	All	
7. The nature, location and markings of significant services	Services Engineer to provide	
8. Information and as-built drawings of the building, its plant and equipment	Last Contract / Construction issue	
9. Project specific additional information	e.g. Fire Strategy information	

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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6.0 Design Risk Management - CDM Procedures for Project Teams (CDM6)

Design Phases		Pre-Construction /All Design Phases					
						Construction Design Phase	
RIBA Stages		0 1 2 3	1 2 3 4	1 2 3 4	0 1 2 3 4 5 6	0 1 2 3 4 5 6	4 5 6 7
	ACTIONS	IDENTIFY	QUANTIFY	CLARIFY	NOTIFY	MODIFY	DELIVER
A	Procedures to Action	**CDM Strategy Brief** Identify the Strategic CDM issues, scope briefing, timescales, team appointments, client H&S adviser, lead contacts, etc **CDM1**	**With Client initiate additional surveys** of site and existing buildings and surroundings. Use **CDM2 initially as aide-memoire. Design concept** being developed in drawings & stage reports	Capture all **foreseeable significant** site and design CDM strategic buildability, & maintainability issues in relation to **other important design risk & reward/ benefit factors CDM4**	Keep project team informed of survey & design development information and actions required. **CDM2** Check client has issued the **F10** to HSE as early as reasonable before construction starts	Project Team to advise on changes from their discipline and discuss how this affects the whole project at **DTM's, CDM4 and update drawings**	At Tender stage Issue **(PCI) Full CDM Document** At Start on Site commence **H&S File CDM5** At Completion stage Issue Full Health & Safety File **CDM5**
B	Agree Significant CDM Issues	**Initial Key Issues**	**Selection of Key Issues**	**Review & Discuss**	**Regular Updates**	**Change Control**	**Information Flow**
		Collate relevant, significant, foreseeable CDM Issues from existing H&S File, site surveys **CDM2**, early design & construction risks. **CDM3** Check Particular Risks Schedule 3 L153	**Add all new Relevant Survey information** into Tracker template **CDM2, and add** **Significant CDM design issues**, **(not generic normal issues) CDM3** Multi-factorial / dimensional issues only	Review & discuss complexity of each "Significant issue" with **other issues** by team input and discussion at meetings. **Agree Tolerability of Risks CDM4**	Version control of changes to design information ; important to focus on key issues. Highlight changes eg. Use coloured text. **All CDMs**	As scheme develops it will evolve and issues change. This needs to be managed by PD. Contractor input also required. **Project change notices.** **Update Strategy Brief CDM1**	Update **CDM Document** Produce comprehensible information at each stage, especially major workstage gateways.
C	Analysis & Communication	**Visually on Drawings**	**Visual Highlighting**	**CDM Analysis visually**	**Track Significant Issues**	**Visual Communication**	**Visual Risk Pathways**
		Identify "issues" by hand on **GA's**, sketches or capture in early BIM model. Use collaborative workshop methods with full project team	Show "issues" **on drawings** Cross relate site issues to survey tracker. **CDM2**	Inc. drawings, sketches & photos of **buildability** into CDM Analysis **CDM4** All multi-dimensional issues to be considered in full project context **NOT** just Health & Safety.	Use a simple risk register tracking document to form an index & summary of the Analysis documentation. Referenced to drawings/GA's with symbols. **CDM3 & GA's**	All CDM document to be circulated to team and displayed on visual display screens at meetings to facilitate informed discussion on changes. **PCI- All CDMs**	Refer to CDM Analysis for design rationale before making changes especially if Value Engineering. **CDM3 & 4 with drawings**
D	Recording & Templates	**N⁰. Significant Issues**	**Concept Schedule**	**Capture Analysis**	**Issue CDM Analysis**	**CDM Analysis updates**	**Annotate Drawings**
		Number the Significant site & design issues in **BIM** or by hand on sketches or drawings and develop the **Significant CDM Issues Schedule CDM3**	Capture a simple list of "issues" for team discussion, location and quantification. Eg. use **HARI Checklist**, IOSH Toolkit, or HSE RAG lists. **CDM3** **Avoid normal routine construction risks.**	Use CDM Analysis and Options Matrix to **capture complexity**, options, proposed solutions, notes and actions. Also a future record of key decisions. **CDM4**	Full CDM document to be issued to all Design Team on a regular basis as updated from workshops or meetings. **All CDMs 1-6** All team members to respond where they are action owners. **All**	Changes and design development issues to be recorded in Schedule **CDM3** and Analysis updated **CDM4**, & issued by PD. Contractor changes to also be reviewed.	All remaining significant issues are **referenced and noted** on project drawings. Develop Analysis document **CDM4** if more detailed analysis is required.
E	Agree Time, Fees & Meetings	**Agree resources**	**Focus on Key issues**	**Regular CDM reviews**	**CDM Meetings Output**	**Feedback changes**	**H & S File Tracker**
		CDM Fees to be clear in the appointment, inc. reviews, Client & project meetings, Gateways, workstages. **PD Fee Proposal & client awareness letter** **Client** to appoint PD & all consultants	Apply **Principles of Prevention** as App. 1 (L153). RAG **tolerability status** to be attributed to each issue in CDM Risk Register. **CDM3** Consider issues proportionately as qualified by **SFARP.**	Discuss Key issues at **DTM's** Hold **CDM catch-ups & reviews** when necessary using screens, documents & trackers. **All CDM's**	CDM discussion to be captured in minutes of meetings, sketches or annotated drawings. Visual display screens to be used to display complex **CDM4 Analysis.**	Any changes, discovery or developments to be fed back from and to each team to modify drawings, reports and analysis. **All CDMs**	From the Start on Site the compilation of the **H & S File** needs to be commenced. Use Template **CDM5.**
F	Collaborative working	**Design team members**	**Design Team Mtg's**	**Team input**	**Team risk analysis**	**All Design Changes**	**Health & Safety File**
		Identify Design Team and hold initial meeting. **Issue** all CDM strategy information to project team. Request Consultant contributions **CDM1, 2, 3**	Significant CDM issues to be **discussed with normal agenda** in Design team Meetings and outcomes recorded. **DTM notes**	**Buildability, maintainability & usability?** Early specialist engagement is desirable e.g. Contractors & Subcontractors. **DTM & Workshop Discussions**	All design team members to contribute their significant project CDM issues to PD for inclusion into Analysis. **CDM3 & 4**	All design changes to be implemented by designers & PD in updates to CDM documentation an coordinated drawings. **All CDMs & Drgs.**	All team members to contribute to H&S File document during design and construction stages as Appx. 4 (L153) Pre-handover. **CDM5**
		U	V	W	X	Y	Z

CDM1- CDM Strategy Brief • **CDM2** - Survey Tracker • **CDM3** - Schedule of Significant issues • **CDM4** - CDM Analysis & Options • **CDM5** - H&S File Tracker & Document Format
Red Text - Denotes Actions **PCI** - Pre-Construction (Design) Information **L153** - CDM 2015 Regs & Guidance ***Project Team** - includes Client, PM, Consultants and Contractors

Use these boxes on smaller or simpler projects

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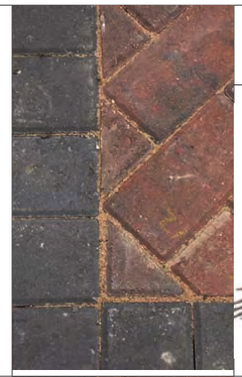
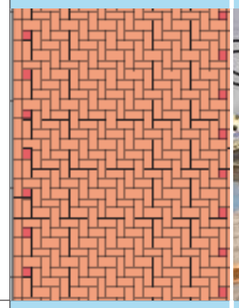
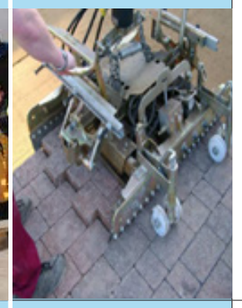
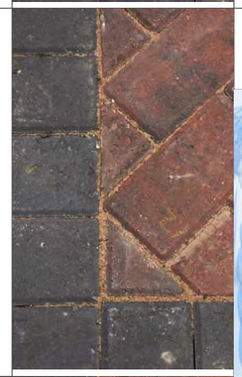
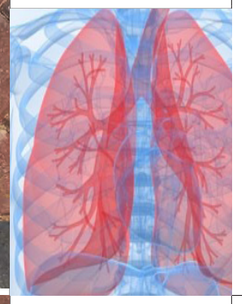
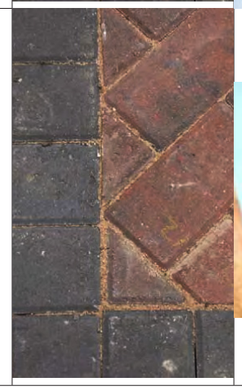
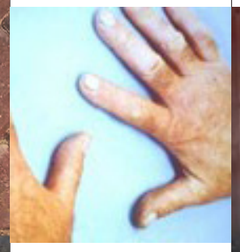
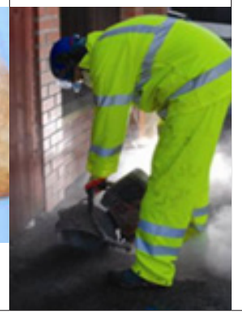
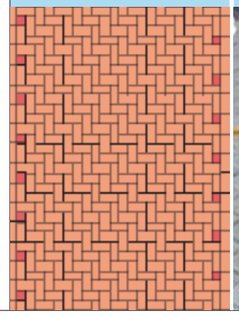
7.0 CDM Health Issues Matrix (CDM7)

Ref No:	Significant CDM Issues identified visually (BUT only Health issues that are not normal, generic, routine, or trade specialist related) 1. Eliminate or avoid Risks (during early design stages) SFARP (so far as reasonably practicable). 2. Reduce or minimise Risks (during all design stages and include a safety system of work) ALARP (as low as reasonably practicable). 3. Provide further information with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. 4. Track action owner and status				Design Mitigation Methods					Design Risk Action & Status Not tolerable Ongoing Tolerable
BLOCK PAVIORS		Type of Risk	People affected	Eliminate or use	Option 1	Option 2	Option 3	Project Information	Further Information	
7.1		Musculo-Skeletal injuries 	Operatives	Eliminate X or Use ✓	Reducing size of units or elements 	Use of Machines 	Smaller Machines 	Access, size of project and duration for mechanisation will dictate the methods chosen. Small refurbishments may not justify the use of large plant.	HSE Research Report (man holding back image)	Action Owner
7.2		Respiratory Risks during cutting. 	• Operatives • Other workers • Site staff • Neighbours • Public	Eliminate X or Use ✓	Minimise cut blocks in paving pattern 	Ensure dust suppression 	Containment, suppression etc 	On site availability of suitable cutting equipment and containment to cutting areas is essential	HSE Research Report RR878 -Respiratory issue report 	Action Owner
7.3		Hand arm vibration during cutting. 	Operatives 	Eliminate X or Use ✓	Use special blocks 	Use block splitter 	Use non-vibrating cutters 		HSE Research Report RR878 -Respiratory issue report 	Action Owner

Project: 00000 Name of Project			Date: XX Month Year		Design Stage: Workstage (Name)		Revision No: 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

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Ref No:	**Significant CDM Issues identified visually (BUT only Health issues that are not normal, generic, routine, or trade specialist related)** **1. Eliminate or avoid Risks** (during early design stages) **SFARP (**so far as reasonably practicable). **2. Reduce or minimise Risks** (during all design stages and include a safety system of work) **ALARP** (as low as reasonably practicable). **3. Provide further information** with the design e.g. Residual Risks, Specialist Design Issues, Client FM input etc. **4. Track action owner and status** **Design Mitigation Methods**								**Design Risk Action & Status** Not tolerable Ongoing Tolerable
BLOCK PAVIORS		**Type of Risk**	**People affected**	**Eliminate or use**	**Option 1**	**Option 2**	**Option 3**	**Project Information**	**Further Information**	
				Eliminate X **or** **Use** ✓						**Action Owner**

Project: 00000 Name of Project			**Date:** XX Month Year		**Design Stage:** Workstage (Name)		**Revision No:** 123			
Team Consultees	Client		Architect		Struct. Engineer		Services Eng.		P. Contractor	
Others	PM		P. Designer		Facade		Cost Consultant		Facade Access	
	Int. Des		Fire Eng.		Acoustic		Lighting Design		Others	

Appendix A

Particular Risks

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The miscellaneous other 'Significant CDM issues' should consider the following extract from L153 Schedule 3 Regulation 12(2):

Particular Risks *	Notes / Comments / Action required	Included ✓ / Excluded x
1. Work which puts workers at risk of burial under earth falls, engulfment in swampland or falling from a height, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or site.		✓
2. Work which puts workers at risk from chemical or biological substances constituting a particular danger to the safety or health of workers or involving a legal requirement for health monitoring.		x
3. Work with ionizing radiation requiring the designation of controlled or supervised areas under regulation 16 of the Ionising Radiations Regulations 1999.		
4. Work near high voltage power lines.		
5. Work exposing workers to the risk of drowning.		
6. Work on wells, underground earthworks and tunnels.		
7. Work carried out by divers having a system of air supply.		
8. Work carried out by workers in caissons with a compressed air atmosphere.		
9. Work involving the use of explosives.		
10. Work involving the assembly or dismantling of heavy prefabricated components.		

* Note - if these are present they must be reflected in the significant CDM Issues Schedule and Construction Phase Plan

Appendix B

GA Drawings with significant CDM Issues located

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Appendix C

Other Consultants Risk Analysis Information

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Appendix D

Workplace health, safety and welfare

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The miscellaneous other 'Significant CDM issues' should consider the following extract from Workplace health, safety and welfare:

Regulations	Particular Risks *	Notes / Comments / Action required	Included ✓ / Excluded X
3	Application of these Regulations		✓
3a	Means of transport		X
3b	Construction sites		
3c	Temporary work sites		
4	Requirements under these Regulations		
4a	Modifications, extensions and conversions		
4b	Stability and solidity		
5	Maintenance of workplace, and of equipment,devices and systems		
6	Ventilation		
7	Temperature in indoor workplaces		
7a	Thermal insulation		
7b	Solar radiation		
7c	Harmful or offensive fumes		
8	Lighting		
9	Cleanliness and waste materials		
10	Room dimensions and space		
11	Workstations and seating		
12	Condition of floors and traffic routes		
13	Falls or falling objects		
14	Windows and transparent or translucent doors, gates and walls		
15	Windows, skylights and ventilators		
16	Ability to clean windows etc safely		
17	Organisation etc of traffic routes		
17a	General requirements for traffic routes		
17b	Separation of people and vehicles		
17c	Crossings		

Regulations	Particular Risks *	Notes / Comments / Action required	Included ✓ / Excluded X
17d	Loading bays		
17e	Signs		
18	Doors and gates		
19	Escalators and moving walkways		
20	Sanitary conveniences		
21	Washing facilities		
21a	Minimum numbers of facilities		
21b	Remote workplaces and temporary work sites		
21c	Ventilation, cleanliness and lighting		
22	Drinking water		
23	Accommodation for clothing		
24	Facilities for changing clothing		
25	Facilities for rest and to eat meals		
25a	Disabled persons		
25b	Facilities for pregnant women and nursing mothers		
25c	Preventing discomfort caused by tobacco smoke		
27d	People with disabilities		

* Note - if these are present they must be reflected in the significant CDM Issues Schedule and Construction Phase Plan