

Meeting Record

Date	16 th January 2023 (Mon), 16:30-18:00
Venue	Video conference using Microsoft Teams
Chair	Paul Bussey
Topic	Pre-Construction CDM Industry Report

NOTE ON COVID-19: Since 23rd March 2020, all DIOHAS meetings will take place over video conference.

Agenda

Presentation Title: CONIAC UK Construction Safety App & HKS' CDM Journey

Agenda:

For the first part of the meeting, our guest speakers are Hollie Stocks and Ian Fik of Williams Lea. They introduced the upcoming CONIAC UK Construction Safety App.

For the second part, our guest speaker Paul Strudwick of HKS talk about HKS' CDM Journey.

Finally, Paul Bussey closed the meeting by circulating two documents:

- Extract from January 2023 Bulletin Update from the Interim Industry Competence Committee (IICC) by Chair of IICC Jon Vanstone
- A note on the RIBA Principal Designer Competence Plan and it is anticipated an operational system will be in place by September 2023

Recording

Link to the recording of the meeting:

<https://youtu.be/gQ-qSdet-4Y>

Update from the Interim Industry Competence Committee (IICC)

Jon Vanstone, Chair of IICC reflects on the recent work of the committee...

During the second half of 2022 the IICC has been concentrating activity on the following key elements:

- Advising HSE on the structural set-up and function of the statutory Industry Competence Committee (ICC)
- Establishing a baseline position of industry competence, as well as understanding the capacity & capability moving forwards through surveying, interviewing and research
- Forming a new Industry Engagement Panel aimed at cross-sector collaboration on matters of competence to all parts of industry, which will be adopted by the future ICC
- Continued engagement with industry at conferences, Q&A sessions and industry working groups



Working with industry, IICC has seen the effect commercial barriers have on how industry moves from theoretical proposals on competence improvements to actual change. The structures in industry need to adapt to the expectations on competence that will be set by the ICC/BSR as the impact of the Building Safety Act becomes apparent.

Over time construction has become aware of the need for change with several industry collectives, such as the Competence Steering Group and Construction Leadership Council which are making good progress, however a lot more needs to be done over the next few years.

IICC with its remaining time will look to set a solid base for the formal ICC in how it works with industry and the expectational challenges it will set, using the collaborative working structures it is helping to create.

In addition, IICC will be keen to see the practical realisation of its Culture of Competence initiative adopted within organisational structures, creating a clear connection between the individual and the business within which they operate.

In early 2023 the committee will complete its recommended strategic plan for the formal ICC, advising BSR on how it could best function. 2023 will be a big year for competence and both the IICC and the ICC is looking to help industry bring the needed step change.

Extract from January 2023 HSE Bulletin Update
Paul Bussey (IICC Steering Group Member, & Baseline Sub-Group)

RIBA Principal Designer Competence Plan

The RIBA is supporting its members working in the built environment to achieve the competence required by the new building safety regulatory regime, and providing an overview of the steps we are taking to ensure architects have access to the necessary training and competency validation.

The RIBA has commenced the development of a scheme - the RIBA Principal Designer Certification Scheme ('the Scheme') – which will allow individual architects registered in the UK (i.e., individuals on the Architects Registration Board register) to certify and register that they meet the competence assessment criteria to serve as Principal Designers.

The Scheme will be run by a Principal Designer Certification Body ('PDCB'), as part of the RIBA. It is currently our intention that the PDCB may be independently and impartially accredited by UKAS as fit to deliver the Scheme in conformance with ISO/IEC 17024 – Certification of Personnel. We are working with UKAS on that basis. 'Principal Designer' is a regulated dutyholder role already required on many construction projects in the UK under the Construction (Design and Management) Regulations 2015 and in future, in England, under secondary legislation introduced by the Building Safety Act 2022.

Our Scheme will provide a system for assessing whether Registered Architects meet the assessment criteria for Principal Designers and, if they do, certifying and registering them accordingly. The Scheme certificate's scope will cover the competence needed to carry out the duties required of Principal Designers under both the Construction (Design and Management) Regulations 2015 and secondary legislation introduced by the Building Safety Act 2022.

Certification will lead to one of two possible attainment levels:

1. PD, certifying that the individual meets the Scheme's assessment criteria for principal designer competence to work on all projects other than higher-risk buildings
2. PDPlus, certifying that the individual meets the Scheme's assessment criteria for principal designer competence to work on all typologies of projects including higher-risk buildings

Our Scheme will use the competence thresholds for the Principal Designer dutyholder role under the Building Safety Act as set out in PAS 8671. The competence thresholds for the Principal Designer dutyholder role under the CDM Regulations have been developed independently by RIBA with expert input. These competence thresholds use the same general format and headings as the competence thresholds under the BSA, allowing the two to be combined.

An operational system will be in place by September 2023, but we do not under-estimate the scale of the challenge. In terms of training provision, since the CDM 2015 Regulations came into effect, we have been offering a range of courses on the Principal Designer role. This is now delivered as six 1.5-hour webinars on the RIBA Academy – our online CPD platform – and from Spring 2023 we are offering this as a combined and consolidated CPD programme covering the Principal Designer role under both CDM 2015 and the Building Safety Act 2022.

The webinar series will provide comprehensive understanding of the regulations, context and background, as well as Principal Designer and Design Risk Management practicalities, using a range of case studies and examples. It will primarily be aimed at architects with three or more years' experience who wish to demonstrate competence as a Principal Designer.

We are also in the process of developing the RIBA Principal Designer Guide, which will cover the legal framework and compliance, the role and appointment of Principal Designers, Principal Designer Statutory Duties and Competences, and will provide document templates for use by Principal Designers.

Whilst some of our members may wish to take up the Principal Designer role, all of them will be required to fulfil Designer duties under both CDM and the Building Safety Act, and we are therefore also in the process of updating the RIBA Health and Safety Guide and our online Health and Safety test to cover these extended duties. We will be updating our existing CPD provision of Designer duties under CDM to also cover the new Designer duties under the Building Safety Act.

Adrian Dobson (RIBA) & Paul Bussey (RIBA, AHMM, CIC).6th January 2023

HKS

HKS 'CDM Journey'

16th January 2023 DIOHAS

16 January 2023

Agenda

- **Introduction to HKS**
- **HKS CDM 2015 Processes**
- **CDM Visually – Benefits & Examples**
- **HKS Internal Process Communication & Knowledge Sharing**

HKS – Who we are

1350/1

1350 Professionals/
One Global Firm

462

HKS projects are highly successful, winning over 462 awards

\$1.7B

Completed more than \$1.7 billion in construction volume in 2013

70%

Over 70% of HKS business are recurring projects

\$76B

HKS has executed design valued in excess of \$76 billion (US)

LOCATIONS:

Experience with a Global Perspective

We have offices strategically located around the world to offer the best intellectual capital and resources for your project.



HKS London – Who we are



Commercial Interiors



Education



Healthcare



Hospitality & Masterplanning



Sports

83 FTE

HKS CDM 2015 – Processes

Designer's Risk Assessment

Risk No 07 Rev 1

project		Job no 53874.110	
design element or site feature Dense concrete blockwork		file in Balustrades	
prepared by HKS		Job no 53874.110	
potential hazard Manual handling / musculo-skeletal		file in CDM/Designers RAs	
personnel at risk Site Personnel		date January 2020	
uncontrolled risk rating High / medium		potential hazard Falls from height	
If none state reason		personnel at risk Building users	
Blockwork specific		uncontrolled risk rating High	
Where high strength		If none state reason	
Load bearing external		The following balustrade design principals have been <u>applied</u> :	
The general design opportunity for a:		Building perimeter, roof <u>terraces</u> - 1100mm high balustrade with deterrent paving/landscaping adjacent to the balustrade.	
Internal partitions		Winter garden lightwell balustrades - 1500mm high balustrade with visual contrast band adjacent to the balustrade as warning.	
design stage risk control		Elevated link bridges - 1800mm high balustrade	
		Car park - 1100mm high balustrade integral with car park barrier system	
residual risk rating Medium		residual risk rating Medium	
<input checked="" type="checkbox"/> principal contractor <input type="checkbox"/> other contractors <input type="checkbox"/> client/end-user		<input checked="" type="checkbox"/> principal contractor Ensure that no furniture, crates, packaging, etc. is located adjacent to the balustrades. <input type="checkbox"/> other contractors <input type="checkbox"/> client/end-user	
distribution CDM co-ord		distribution CDM co-ordinator	
pre-construction information mechanical consultant		client architect quantity surveyor structural engineer	
		pre-construction information mechanical consultant electrical consultant landscape consultant principal contractor other (state)	

C = Contractor
O = Occupiers
M = Maintenance Staff

53954
MX0427-HKS-SA-ZZ-SH-A-XX04
Rev 02
18.03.21

Activity	Hazard	Action Owner	Persons At Risk			Design Measures Taken To Eliminate Or Reduce The Hazard	Residual Hazard	Persons at Risk			Information On Residual Hazard To Be Included On The Drawings	Further Action By	Close Out Date
			C	O	M			C	O	M			
Construction	Silica Dust from chases within Sports Hall Blockwork	Architect	✓			Sports Hall to be drylined from First Floor upwards, all services to be conduit fed and face fixed.	To be monitored as design progresses and reviewed against Sport England requirements for flush surfaces.	✓			N/A	Item Closed, works complete.	Pre-construction
Building Operation	Falls from height during maintenance access to roofs.	Architect			✓	Plant equipment requiring regular maintenance access is located within the roofs that have 1100mm high parapets. As such the Activity Studio is perceived to be no requirement for regular maintenance. Infrequent maintenance access to the roof e.g. for repairs, will require temporary edge protection measures and input from a Specialist Contractor to determine safe working practices. 210318: Agreed with Principal Designer to increase parapet height to 1100mm and to facilitate visual inspection from safe working area.	Temporary edge protection and access to Specialist Contractor. 210318: Hazard eliminated through design change.		✓		Refer to Cleaning, Access and Maintenance Strategy for roof access.	Item Closed, works complete.	Pre-completion

CDM Visually – Already in Use



High visibility clothing must be worn in this area

Mandatory Signs



Caution
Wet floor

Warning Signs



No entry

Prohibition Signs



Use to Avoid or Prevent a Particular Action



To identify Significant Design or Site Risks for Inclusion on the Designers Risk Identification and Management Table



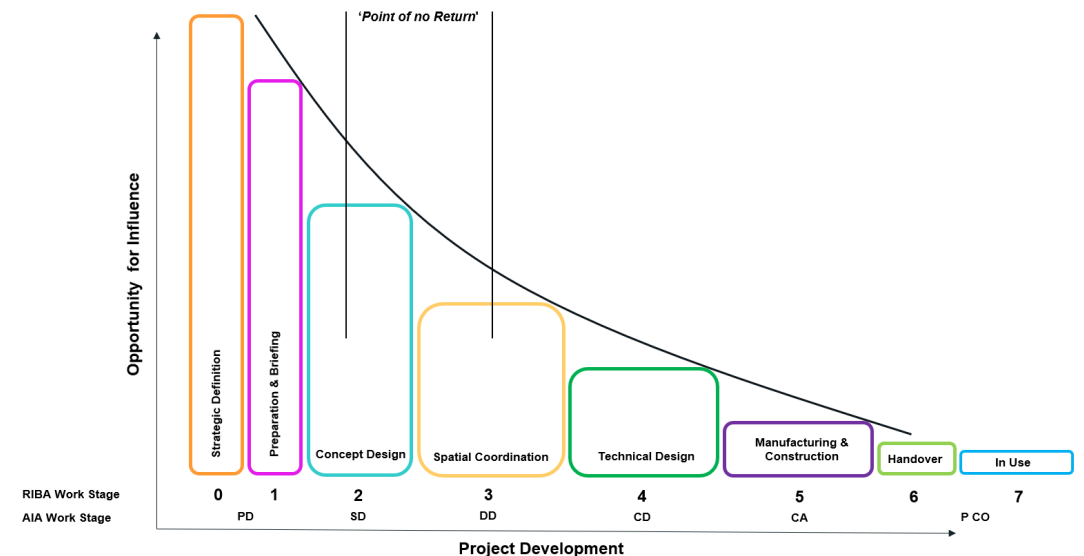
To Identify Relevant CDM Information/Notes



To Encourage a Particular Action or Requirement

CDM Visually – The Method & Goals

- Identify significant risks at each design stage in a visual way by brainstorming 3D Images & Drawings.
- Significant risks identified - not risks that are purely related to a normal trade contractor or main contractor construction issues that are within the capability and training parameters of experienced contractors.
- Communicate design risk to all stakeholders clearly.
- Facilitates open discussion for design risk resolution with the Principal Designer.
- Raise design quality by reviewing design risks or challenges early to enable innovative solutions and enable collective transparent dialogue for agreed decision making.



CDM Visually – Examples

! Proximity of adjacent estate buildings, logistics of construction methodology

! Overhead cables & services from existing retained to existing remodelled

i How is existing building retained draining, how are RWO's draining & inspected?



i What is current cleaning and maintenance strategy?

! Limitations of existing structure & impact on design of mezzanine structure

! Overhead cables & services from existing retained to existing remodelled

! Sloped external levels to potential MEWP access for reclad and new first floor windows

! Proximity of adjacent buildings and risk of fire during construction.

! Route for Cleaning & Maintenance following reclad and remodelling.

! School bus and coach drop off and separation/ management with construction traffic.

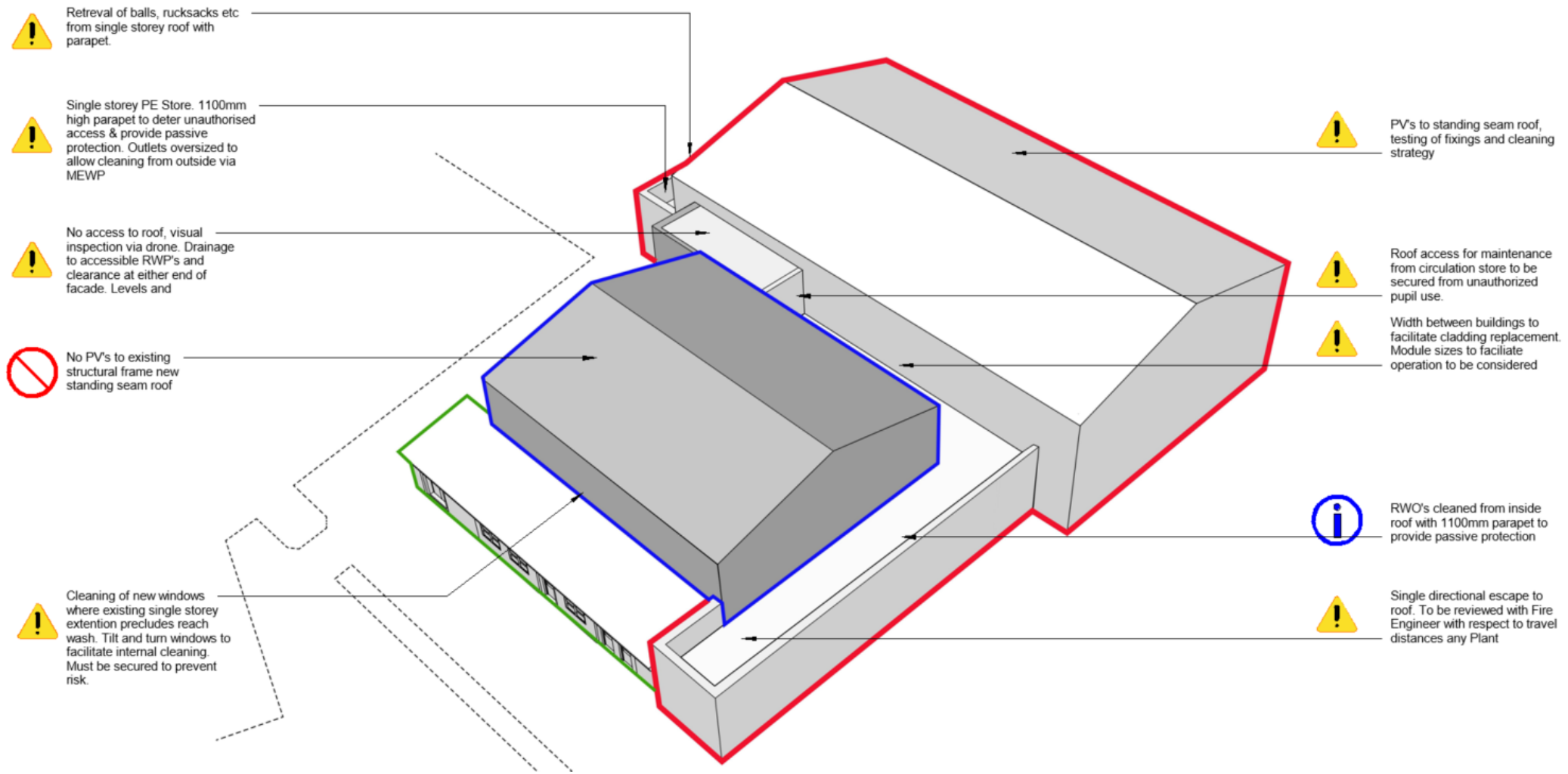


! Location of mature trees within memorial garden and target block for demolition/ reclad.

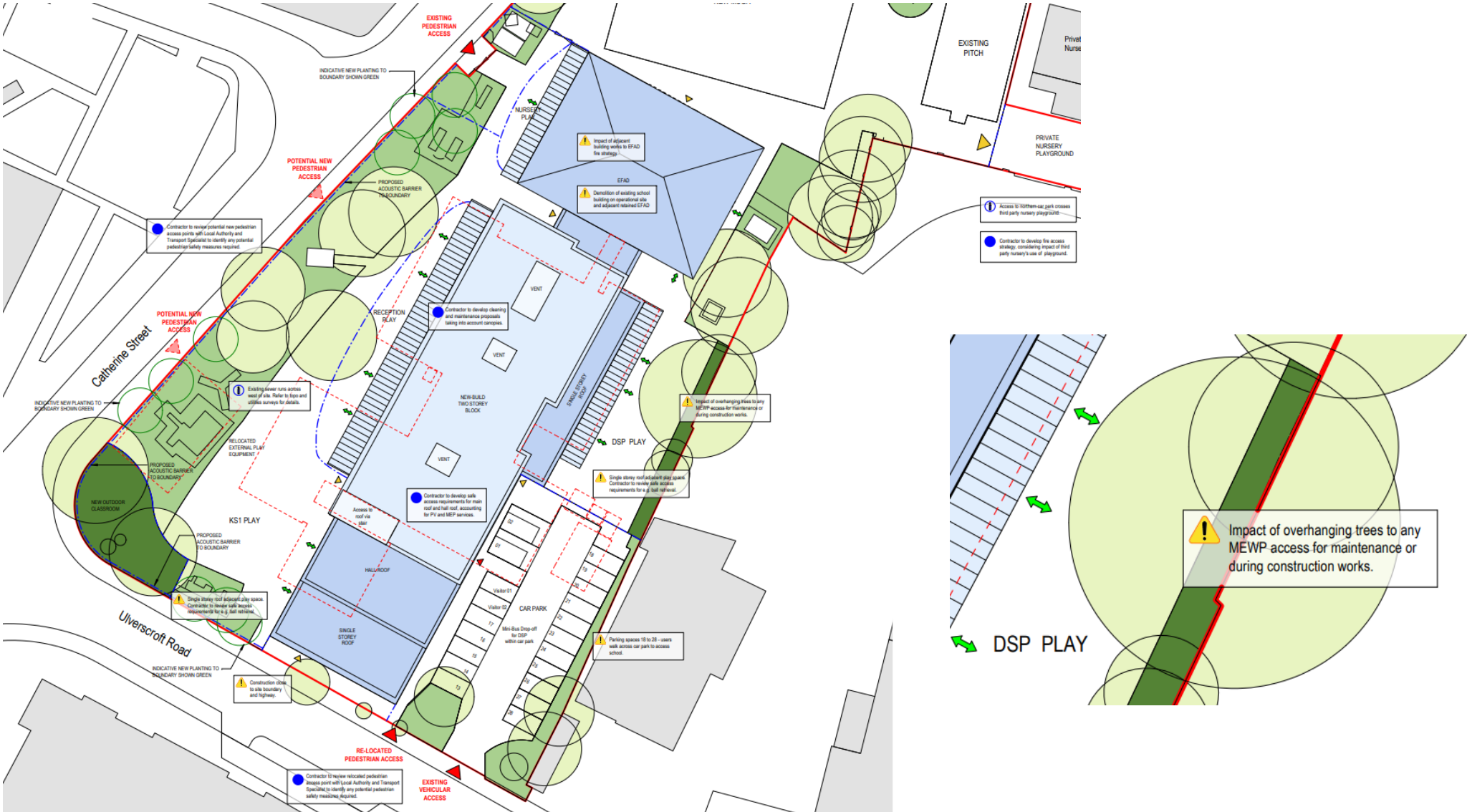
! Location of mature trees within memorial garden and target block for demolition/ reclad.

! Unknown location of existing attenuation tank

CDM Visually – Examples



CDM Visually – Examples



CDM Visually – Examples



No plant to inaccessible roofs

Plant replacement given site constraints, size of kit to be considered

Cleaning strategy to windows, reach and wash above canopy?

Cleaning strategy for set back glazing systems

Cladding works to restricted boundary with estate.

Noise and impact on existing building during reclad works

Parapet heights to maintained roof area, security from adjacent staff and patient areas to avoid unauthorised access

Green wall and fire risk during hot summers. Irrigation procedures to be agreed and assessed.

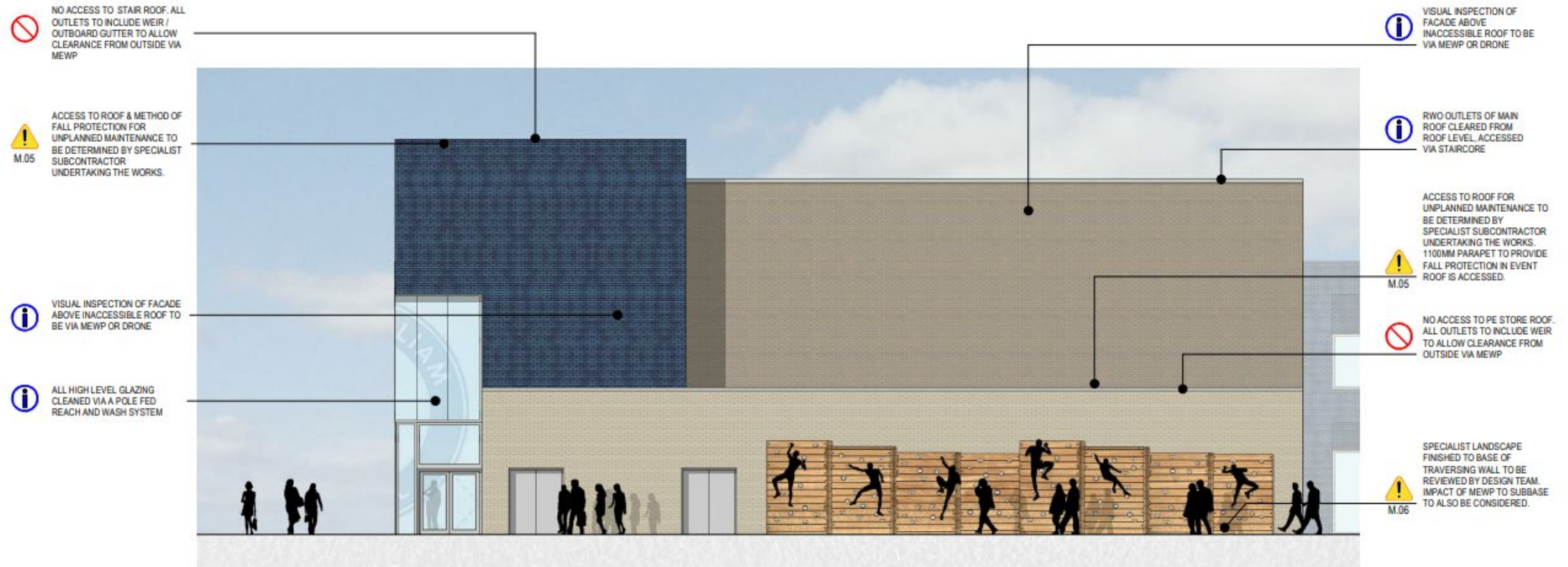
Height of guarding to public areas, height in excess of minimum to be considered in context - 1800mm

Landscaping furniture and impact on visually impaired, access & inclusion strategy to be developed

CDM Visually – Examples



CDM Visually – Examples

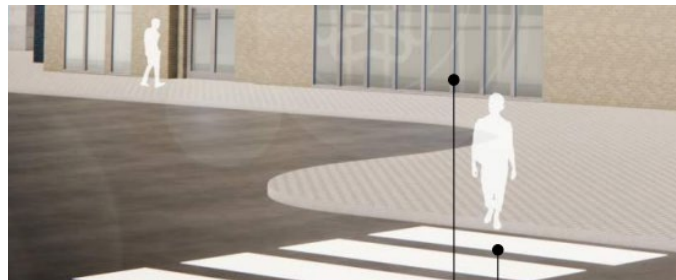


CDM Visually – Designers Risk Identification & Management Table

Project Name:		Work Stage:	RIBA Stage 3	Revision:	02	HKS
Principle Designer		Date Issue:	21.03.22	Document Ref:	55157-HKS-ZZ-ZZ-SH-A-0002	

This Design Risk Identification Table & associated drawings is to inform the Work Stages up to Employers Requirements only. Following the appointment of a Principal Contractor and their Design Team it is expected that they identified their own design risks to be coordinated and managed by the Principal Designer

Risk Item	Activity	Hazard	Action Owner (Where design team noted this is Action Owner up to ER's only)	Persons at Risk			Design Measures Taken to Eliminate Hazard	Residual Hazard	Persons at Risk			Information on Residual Hazard to be Included on the Drawings	Further Action By	Close Out Date (Milestones where no date indicated)
				C	M	O			C	M	O			
M.02	Building Operation & Maintenance	Safe route for pedestrians through or from carpark	HKS			O	Design team to review external works proposals.						HKS to review design.	Planning Submission
M.02	Building Operation & Maintenance	Safe route for pedestrians through or from carpark	HKS			O	Design team to review external works proposals. 21.03.22 - Dedicated route indicated with markings added to the landscape drawings							Contractors Proposals

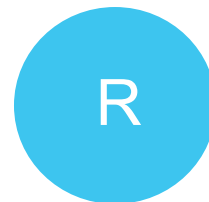


! BOLLARDS TO FRONT OF PAVING TO PROTECT GLAZING FROM VEHICLE IMPACT. TO BE REVIEWED BY DESIGN TEAM.
M.01

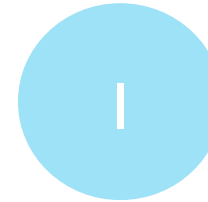
! DEDICATED PEDESTRIAN ROUTE FROM CARPARK TO SEPARATE FLOWS REQUIRED. TO BE REVIEWED BY DESIGN TEAM.
M.02



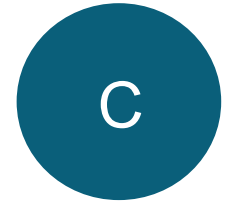
Eliminate



Reduce

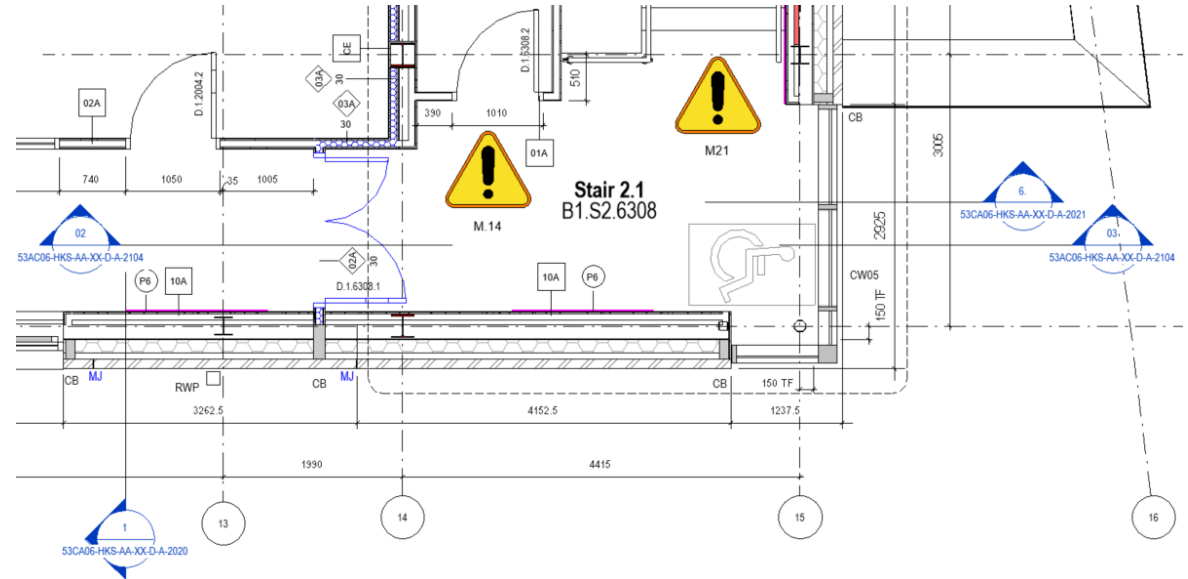
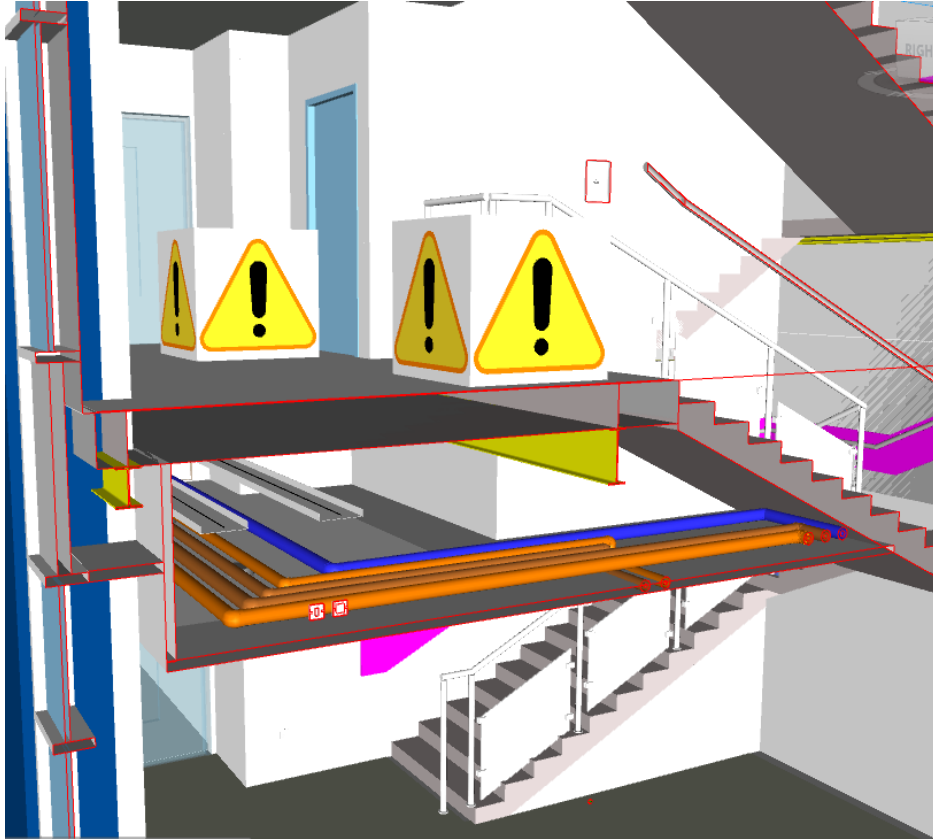


Inform



Control

CDM Visually – BIM



Properties							
Item	Element ID	Stair 2.1 B1.S2.6308	Element	Level	Phase Created	Revit Type	Time
Property	Value						
Name	HKS_Symbol_CDM_3DWarningTriangle						
Type	HKS_Symbol_CDM_3DWarningTriangle						
Family	HKS_Symbol_CDM_3DWarningTriangle						
Category	Generic Models						
Category Id	-2000151						
Id	9031390						
CDM Description	Unauthorised access to the roof via access stair - refer to Clea						
CDM Number	M.14						
Elevation from Level	0.000 m						
Host	Floor : HKS_Floor_Generic_275						
Level	Level "01 - First Floor Level". #3407355						
Moves With Nearby Elements	No						
Offset from Host	0.000 m						
Phase Created	Phase "New Construction", #118390						
Volume	1.000 m³						
Workset	LA_AutoCAD Links						
In Room	Stair 2.1 B1.S2.6308						

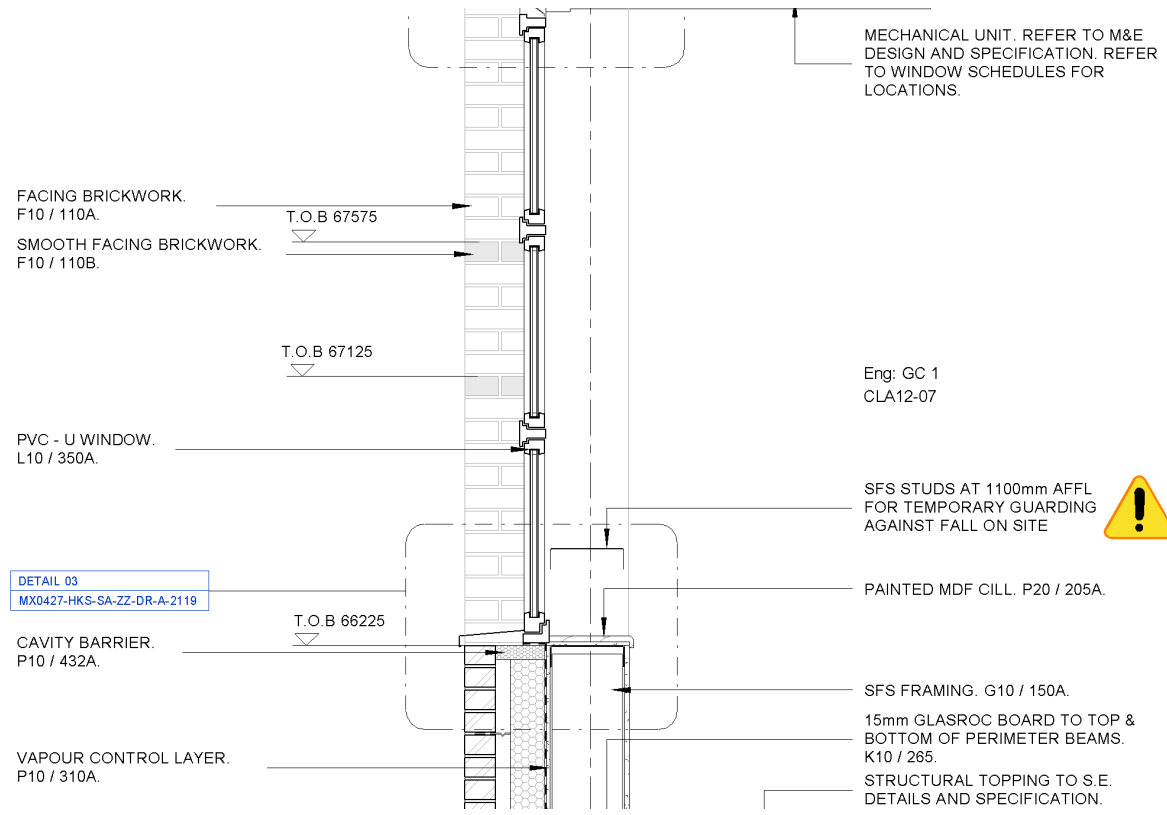
CDM Visually – Residual Risks

C.07	Construction	Falls from height from upper floor window openings during construction.	Architect	C	Window cill heights are 860mm above finished floor level will require temporary protection measures prior to installation of windows. Temporary fall protection added to SFS drawings to enable openings to be protected prior to window installation.	To be monitored as design progresses to identify any residual hazards.	C	Where identified, hazards shall be highlighted on the drawings.	Architect & Contractor	Pre-Construction
C.08	Construction	Floor slabs - Trips and falls from	Architect/ Structural	C	Proprietary temporary infill to precast SVP	To be monitored as design	C	Where identified, hazards shall	Architect, Structural Engineer &	Pre-Construction



C.07

HEIGHT OF CILLS BELOW 800mm, TEMPORARY PROTECTION DURING CONSTRUCTION OF SFS



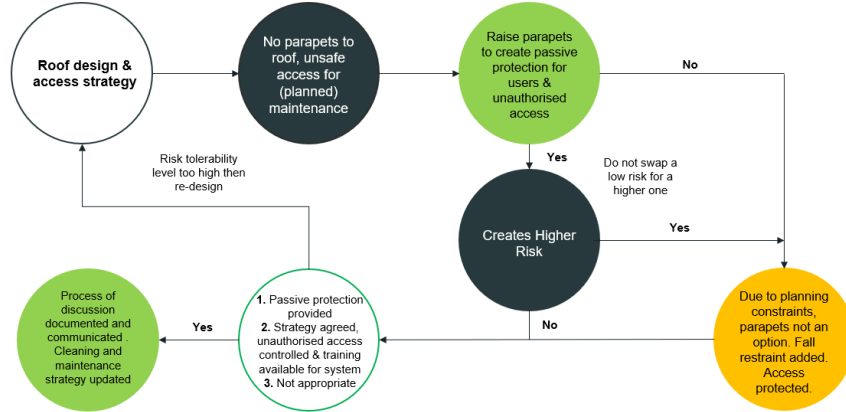
CDM Visually – Hazard Awareness & Risk Checklists



Hazard-Awareness and Risk-Identification Checklist

Significant Risk Index			
A		Catastrophic Risks - Site Specific and Generic	
B		Significant Risks - Site Specific	
C		Significant Risks - Site Generic	
D		Existing Services & Utilities	
E		Contamination & Buried Objects	
F	K	Cladding/ glazing	
G		Flat roofwork, pitched roofwork, masonry, brickwork, blockwork, stonework, panels, windows, patent glazing, sheeting, tiling, slating	
H		Temporary instability	• Avoid designs which involve temporary instability during construction, or specify an erection sequence that avoids it. If unavoidable, detail temporary support measures required • Temporary fixing of windows/curtain walling balustrades and guard rails <i>This may be a specialist subcontractor designer issue</i>
J		Falls from height	Maximise prefabrication, adopt simple details and allow forearly installation of floors, roof decks, stairs, parapets, permanent edge protection etc. to minimise risk from high-level working <i>BS 8560:2012 Code of practice for the design of buildings incorporating safe work at height 30</i>
K			• Specify easily achievable tolerances where possible
L			• Detail to allow easy connection of safety lines, harnesses etc. where necessary
M			• Use large decking, cladding panels, domed roof lights
N			• Consider future maintenance and cleaning, especially balconies
P			• Consider window cleaning from inside where possible
			• Consider permanent access or fastenings
			• Consider appropriate type of temporary and permanent edge protection to roofs
			• Window restrictors, handle accessibility, cill heights and guarding
			• Consider heights of balustrading where publicly accessible, or where seating is provided adjacent (e.g. food courts)
		Construction loadings	• Identify construction loadings on drawings for mechanical installation plant and temporary works allowances and stacking of materials
		The list abc	
		Falls through fragile materials	• Avoid specifying fragile materials (e.g. roof-light panels) • Consider installation, fragility and glazing of roof lights • Provide guard rails around roof lights or raise up
		Once the relevant ris	
		Falling objects	• Ensure adequate lifting provisions on components • Maximise prefabrication • Safe access for future maintenance and cleaning of facades • Review specification for temporary fixing of windows/curtain walls to avoid being blown out by gusts of wind before being permanently fixed (cause of two PI notifications) • Design out complex fixing details of large elements at high level with small components • Ensure no gaps in balustrading where objects can pass through above public areas, e.g. atria, transport hubs, etc. • Advise contractor of need to tether tools, elements and materials, where working above others <i>BS 8560</i>

CDM 2015 – Process Communication



HKS

CDM 2015 Design Risk Management Template User Guidance

Project No: 14954
Date: 28.01.11
Prepared by: P. Srinivasak
Version: 1.0

The Duties of Designers under CDM 2015 include that the designer must take into account the general principles of prevention and any pre-construction information to eliminate, so far as is reasonably practicable, to the health or safety of any persons –

(a) Carrying out or liable to be affected by construction work.
(b) Manoeuvring or closing a structure; or
(c) Using a structure designed as a workplace.

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

(a) Take steps to reduce or, if that is not possible, control the risks through the subsequent design process.
(b) Provide information about these risks to the principle designer; and
(c) Ensure appropriate information is included in the health and safety file.

The first stage in reducing the risk is to identify the hazards. The next stage is to eliminate each hazard, if feasible, by designing them out. If they cannot eliminate the hazard, then the next step is to reduce it and the measures taken should protect everyone exposed, where possible before protecting individuals. Finally, designers must provide information to enable the managing of the residual risks.

To identify significant risks at the design stage and communicate them in a clear manner to all stakeholders a visual approach is to be adopted alongside the use of a Designers Risk Management and Elimination Table.

From the project output 3D images and drawings should be used to transform and identify significant design and the risks in a visual and coherent manner. The purpose of this is to firstly communicate the risks to all stakeholders clearly and to facilitate an open discussion of design risk resolution options for eventual resolution.

The drawings and images with significant risks and relevant information can assist in discussing options with the design team, Principle Contractor with the Principle Designer for eventual resolution. The annotated drawings and images are then read in conjunction with the Designers Risk Management and Elimination Table.

The HKS standard template is linked below with the second link providing an example of the template alongside annotated drawings.

[HKS/CDM/PS/CDM 2015_Templates_and_User_Guidance/Designers_Risk_Identification_and_Management_Table_Template.docx](#)

[HKS/CDM/PS/CDM 2015_Templates_and_User_Guidance/Proposed_CDM Table HKS Template in Use Example.pdf](#)

It is important to note that the intention is to identify significant design and site risks for resolution with the wider design team, Principle Contractor and Principle Designer and not risks that are purely related to a normal trade contractor or main contractor construction issues that are within the capability and training parameters of experienced contractors.

Page 1 of 1
Version: 1.0/2011

HKS

To assist in the identification of design relevant "significant issues" linked below is a Hazard Awareness and Risk Identification Checklist, which gives an indication of the sorts of issues and information to identify on projects for inclusion of the table and on associated drawings.

[HKS/CDM/PS/CDM 2015_Templates_and_User_Guidance/Hazard_Awareness_and_Risk_Identification_Checklist.xlsx](#)

The HKS Template uses 4 four symbols that can be used on the drawings and 3D visuals that are to accompany the Designers Risk Identification and Management Table, which as indicated on the template cover sheet are defined as follows:

- To Identify Significant Design or Site Risks for Inclusion on the Design Risk Identification and Management Table.
- Use to Avoid or Prevent a Particular Action
- To Enforce a Particular Action or Requirement
- To Identify Relevant CDM Information/Notes

This visual approach to identifying significant design and site risks should begin at Stage 1 when the initial brief is available and project site identified.

Page 1 of 1
Version: 1.0/2011

Stage 2 Concept Design

2

Cost

Core Tasks

Fire Safety

CDM 2015

SUS Biomatrix

Include w Design

Planning & Building Regulations

CDM Work Stream Processes, Templates & Examples at each RIBA Work Stage

CDM 2015 – Knowledge Sharing



HKS London Technical Digest 10.12.21

HKS London Technical Digest compiles links to pertinent industry updates each month, recent links shared within the office and useful bite size technical information.

Building & Fire Safety HKS London Technical Digest 10.01.22

Following the pilot taken by chartered members to construct, inhabit, use and leading to a certification point and gateway for the Association for Fire Protection (AFSP), including the role and responsibilities of the Building Safety Bill as it relates to the creation of the new Building Safety Regulator (BSR) viewed [here](#).

Building & Fire Safety HKS London Technical Digest 20.12.22

The Association for Fire Protection (AFSP) has published its new [Building & Fire Safety](#) digest. The HSE (Health and Safety Executive) has published the Building Safety Bill as it relates to the creation of the new Building Safety Regulator (BSR) viewed [here](#).

Sustainability HKS London Technical Digest 20.12.22

The Metal Cladding & Rainscreen (MCR) group has published its new [Sustainability](#) digest. The Metal Cladding & Rainscreen (MCR) group has published its new [Sustainability](#) digest. The Metal Cladding & Rainscreen (MCR) group has published its new [Sustainability](#) digest.

Miscellaneous HKS London Technical Digest 20.12.22

The December RIBA Conservation of Fuel & Power (CF&P) carbon emissions. The CWCT (Centre for Window and Cladding Technology) has published its new [Miscellaneous](#) digest.

Miscellaneous HKS London Technical Digest 20.12.22

The Landscape Institute (LI) have also announced a new [Miscellaneous](#) digest. The Landscape Institute (LI) have also announced a new [Miscellaneous](#) digest.

Miscellaneous HKS London Technical Digest 20.12.22

The IHS Technical Institute (IHS TI) have also announced a new [Miscellaneous](#) digest. The IHS Technical Institute (IHS TI) have also announced a new [Miscellaneous](#) digest.

Miscellaneous HKS London Technical Digest 20.12.22

The new Enscape 3.2 will be installed in individual offices. This brief NBS article regarding specifications import writing this critical project. The snip software Gens Helpdesk can install the software.

Miscellaneous HKS London Technical Digest 20.12.22

The HKS Hub has launched a new [Miscellaneous](#) digest. The HKS Hub has launched a new [Miscellaneous](#) digest.

Miscellaneous HKS London Technical Digest 20.12.22

Revit and Rhino are HKS's primary software to design buildings from concept to construction stages. If you need further training in Revit and Rhino, please email Fabio Robert.

Thank-you