

CDM 2015 - Hazard Awareness & Risk Identification (HARI) Checklist		
Project Name:	Sw anshurst School - Curtain Walling Replacement - Centre Building/ Centre Dance	Date HARI commenced: 16/ 03/ 23
Stride Project Number:	156016	HARI Version at RIBA: Stage 2 / Stage3 / <b>Stage 4</b> / Stage 5
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*Instructions for use*

This HARI Checklist is the key Stride Treglown CDM Regulations document for recording awareness of hazards and identifying risks on the project. The document is to be maintained as a 'living' document throughout all project stages from RIBA 2 to RIBA 5. At the conclusion of each stage, undertake a 'file save as' of the document in PDF format as an audit trail to demonstrate hazard and risk reduction over time. The checklist is to be completed by a 'Designer' as defined by the CDM Regulations. This will usually be the job architect or the job runner from another Stride Treglown design discipline. The form may be used to record a single discipline's input, e.g. from the architect, or it may be used to record the combined inputs from all the Designer disciplines, e.g. the architect, the structural engineer and the M&E Engineers. In the latter circumstance, take care to ensure each disciplines' inputs are clearly identified as belonging to them in order to avoid potential PII issues. The decision to create a combined checklist needs to be agreed by all the designers and taken at the inception of the HARI process. Work through the checklist from top to bottom completing the RAG list boxes and adding narrative where appropriate in the 'Designers' Mitigation / Control Notes' column.

Note that many items in **Section 1 - 'Hazards to be mitigated and/ or controlled which can be anticipated during the Design Phase'** will not apply to your project. In this case click on the 'N/ A' choice in the RAG list drop-down menu box. Note that whilst it is tempting to 'hide' all the rows that are tagged as 'N/ A' to make the checklist appear shorter, do not edit the checklist in this way because it is important to demonstrate in the audit trail that every potential hazard has been examined even it has subsequently been discounted. Where a more detailed record and audit trail of the Designer's mitigations and control measures is required than can be sensibly be entered into the text box for any given item, you are advised to complete a separate Design Risk Assessment form for that item.

In **Section 2 - 'Hazards to be mitigated and/ or controlled that occur in the Construction Phase'** - record any opportunities for you as Designers to contribute to reducing risk for the workers constructing the building - you may be surprised how much influence have to mitigate hazards when you really think about how the building is to be constructed. Work through each of the hazards identified and try to envisage the effects of your Designer's specification, design and detailing choices on actual tradespersons and other workers. Where a more detailed record and audit trail of the Designer's mitigations and control measures is required than can be sensibly be entered into the text box for any given item, you are advised to complete a separate Design Risk Assessment form for that item.

**Section 3 - Register of Residual Risks after Handover in the Use, Maintenance and Demolition Phases** - is for creating a record of 'Residual Risks'. These are items that could not be completely eliminated but remain for the building users to manage. For example, a flat roof represents a 'fall from height' hazard but if a parapet or balustrade has been included, then the Residual Risk is a 'managed' and low risk one - a 'green' in the RAG list box. Note that the register of Residual Risks forms part of the information package which the CDM Regulations legally require to be recorded in the Health & Safety File at the end of the project.

*Definitions*

A '**hazard**' is any source of potential damage, harm or adverse health effect on something or someone under certain conditions at work.

A '**risk**' is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard.

The hazards listed in the tables below are either intrinsic hazards which can cause harm in and of themselves - for example, asbestos or buried explosives - or they are hazards which may arise from a particular site feature, situation or circumstance - for example, proximity to a quayside with deep water or a site with high winds.

<i>RED / AMBER / GREEN colour coding categories</i>	
<b>RED</b> ...indicates a hazard which should be eliminated if at all possible due to it: a) generating a high risk and: b) the difficulty of mitigating and/ or controlling this high risk	
<b>AMBER</b> ...indicates a hazard which still ideally should be eliminated but which is able to be mitigated and/or controlled to reduce the risk to an acceptable level	
<b>GREEN</b> ...indicates a hazard which presents a low risk from the outset OR is a hazard previously of a higher category which has been mitigated or controlled	
<b>N/ A</b> on a white background...indicates a hazard which does not apply on this particular project	<b>N/ A</b>

<i>ISSUE LOG</i>					
Version	Reason for issue	Date	Issued to	From	Checked
1	Stage 2 issue for information	16.03.23			
2	Stage 3 issue for information	27.04.23			
3	Pre-Construction Issue	19.06.23	Design Team	CH	AS

Section 1 - Hazards to be mitigated and/ or controlled which can be anticipated during the Design Phase

Ref.	Hazard	General Notes & Prompts	Designer's Mitigation / Control Notes	RAG	Ref.
SITE FEATURE HAZARDS - Reference prefix 'SF'					
SF01	Proximity to an overground railway inc. embankments, cuttings and viaducts	The Office of Rail Regulation and Network Rail will need to be involved at the earliest opportunity as there are comprehensive rules for building close to or over railways.	No overground railway inc. embankments, cuttings and viaducts in close proximity to the building	N / A	SF01
SF02	Proximity to an underground railway / railway tunnel	The Office of Rail Regulation and Network Rail or alternatively another body such as Transport for London will need to be involved at the earliest opportunity as there are comprehensive rules for building close to or over railways.	No underground railway or railway tunnel in close proximity to the building	N / A	SF02
SF03	Proximity to a motorway / trunk road inc. embankments, cuttings and viaducts	The Department for Transport may need to be involved at the earliest opportunity.	No motorway/ trunk road, inc. embankments, cuttings and viaducts in close proximity to the building	N / A	SF03
SF04	Proximity to other roads inc. embankments, cuttings and viaducts	The local or county authority may need to be involved at the earliest opportunity.	No other roads, embankments, cuttings or viaducts in close proximity to the building	N / A	SF04
SF05	Proximity to a road tunnel	The category of road carried using the tunnel will determine whether it is the Department for Transport or the local / county authority who is responsible.	No road tunnel in close proximity to the building	N / A	SF05
SF06	Proximity to a canal inc. aqueducts, locks and tunnels	The Canal and River Trust will need to be involved at the earliest opportunity. Drowning is an ever present danger. Canals themselves may be relatively shallow but locks are particularly hazardous installations.	No canal, aquaducts, locks or tunnels in close proximity to the building	N / A	SF06
SF07	Proximity to a river	The Environment Agency and/ or the Canal and River Trust may need to be involved at the earliest opportunity. Rivers are highly variable environments with tides or high rainfall creating the potential for flooding a site over a short period of time. Drowning is an ever-present danger.	No river in close proximity to the building	N / A	SF07
SF08	Proximity to a quayside or dock	Quays and docks have the potential to be dangerous places for a number of reasons including the fact they are adjacent to deep water and often have unguarded edges. Accordingly, drowning is an ever-present danger. There are also hazards arising from dockside installations/ activities which can include moving cranes, container-handling equipment, railways and lorries. Ownership of quays and docks may fall under many different types of tenure including the Ministry of Defence, Associated British Ports, other public bodies or private owners.	No quayside or dock in close proximity to the building	N / A	SF08
SF09	Proximity to a large bridge	There will be a variety of issues when working close to high bridges. Falling objects from the bridge is one possibility. Downdraughts is another.	No large bridge in close proximity to the building	N / A	SF09
SF10	Proximity to an airport / airfield	Airports and airfields have the potential to be dangerous places for a number of reasons. Particular issues for aviation include FOD (Flying Object Damage) to aircraft or caused by aircraft to the surrounding environment. Interference with avionic / communication equipment is also an issue to consider. Radars give off powerful electromagnetic radiation. Ownership of airports and airfields may fall under many different types of tenure including the Ministry of Defence, Civil Aviation Authority, other public bodies or private owners.	Constuction traffic to be controlled and minimised where possible to avoid disruption to other road users accessing primary shool in contruction and demolition phase. Site access point and boundaries opposite entrance to be made secure with safe segregated pedestrian and cyclist access points provided. Operations/ access times to be coordinated to mitigate disruptions to the schools operating times, including drop off and pick up. Security and safeguarding will be considered carefully and managed around the the shared site entrance and adjoining boundary. Placement and massing of the proposed building mitigates risk to pupils and staff during construction.		SF10
SF11	Proximity to a hospital / health facility	Hospitals will require constant access for emergency vehicles. Noise from construction sites may present problems to inpatients. Similarly, dust from construction sites can adversely affect vulnerable patients.		N / A	SF11

SF12	Proximity to a college / school	Schools in particular are vulnerable to compromises in road safety from construction sites. When working within schools, there will be security and safeguarding requirements for contractors to resolve.	Site access for deliveries to be from the rear gate off Billesley Tennis Centre access road, banksman to walk in front of the vehicle to the site. Site exit to be via the main drive where automatic gates will open on approach. Alternative access for deliveries/ waste collection not possible, construction traffic to be controlled and minimised where possible to avoid disruption to other road users accessing the school in the construction and demolition phase. Construction/ demolition work will commence during term time, although the bulk of the facade replacement will be taking place during the holiday period during which time there will be minimal presence of staff or pupils on site, construction will commence four weeks prior to the school closing. Contractor to provide traffic management and signage and to observe the schools requirements for contractor parking arrangements. Suggest the Contractor proposes a delivery plan to be discussed and agreed with the Client together with the compound arrangements for safe off loading. Security and safeguarding will be considered carefully around the movement of vehicles through the site.		SF12
SF13	Proximity to a military establishment	Military establishments will have a range of health & safety issues for contractors working in or adjacent to them. Security is one of a number of 'high profile' issues. Some types of establishment may have a legacy of old <del>unexploded ordnance buried in the ground.</del>	No military establishments in close proximity to the site	N / A	SF13
SF14	Proximity to high buildings	High buildings will produce high wind speeds at ground level due to downdrafts off the faces of the building. Objects may also fall or be <del>deliberately thrown from high buildings.</del>	No high buildings in close proximity to the site	N / A	SF14
SF15	Proximity of historic / listed buildings	There will be a variety of issues including maintaining support of relatively weak structures, the maintenance of historic assets and the presence of obsolete materials such as asbestos.	No historic or listed buildings in close proximity to the building	N / A	SF15
SF16	Existing building(s) to be incorporated into the project	There will be a wide variety of issues including structural stability and obsolete materials such as asbestos, lead paints etc.	Riverside Type 3 Asbestos report ref. <del>237536</del> confirms ACMs are present. Chrysotile asbestos has been identified in the boarding to the rear of the glass façade, within the existing floor tiling/ adhesive backing and the putty/ mastic to the window frames. The nature of the works requires the removal of the asbestos containing material to facilitate the stripping out of the facade, the contractor is to provide a method statement covering the proposed means of removal. Removal of ACMs to take place prior to works commencing on site and during school periods when no pupils or staff are present on site. Due to the nature of the works the condition of the existing structure is not visible, the curtain walling fabricators will need to survey the building and highlight any fragile areas or items requiring special attention once the structure is exposed. Strucural details/ specification for remediation work required to the cantilevered floor slab to the staircore to be provided by the Structural Engineer.		SF16
SF17	Unusual topography inc. cliffs / steep slopes / pits	Unusual topography will present a variety challenges. For example cliffs can present the danger of rockfalls and produce high windspeeds at ground level from downdraughts.	No unusual topography in close proximity to the building	N / A	SF17
SF18	Existing building(s) to remain in use during the construction period.	There will be a variety of issues around the logistics of the building remaining in use including large numbers of pupils using the dining room facilities during the lunchtime periods and the food technology classroom being in use throughout the day.	The curtain walling refurbishment affects the rear elevations of Centre Building and all elevations to Centre Dance, partial possession of Centre building will restrict construction/ demolition works to one half of the building whilst the remaining areas are still in use. Separate access is to be maintained for site personel for the first 4 weeks of the construction period and access for use by the school will not be permitted Discussion needed bewteen Contractor, fabricator and Client to agree sequence of work and measures to be put in place to prevent unauthorised access and maintain existing escape routes for the building users..		SF18
SF19	Other hazard - designer to define				SF19
SF20	Other hazard - designer to define				SF20
UTILITIES & SERVICES HAZARDS - Reference prefix 'US'					
US01	Proximity to energy generating / transmission facilities	This may include renewable sources such as wind turbines and photovoltaic 'farms'. Wind turbines may produce interference to telecommunications transmitters. PV farms may create dazzling reflections of the sun.	No energy generating/ transmission facilities in close proximity to the building.	N / A	US01
US02	Overhead electricity lines	The National Grid governs the major high voltage transmission lines with regional power distribution companies governing installations running at lower voltages. Power lines generate electromagnetic fields although there is debate about how much effect they might have on health. Notwithstanding there may be interference to telecommunications systems <del>from power lines. The ubiquitous hazard is electromcution</del>	No overhead electricity lines in close proximity to the building	N / A	US02
US03	Underground electricity lines	Underground lines can also include major high voltage lines.	No underground electricity lines in close proximity to the building - not relevant to proposed refurbishment works	N / A	US03
US04	Underground gas pipelines	The National Grid governs the high pressure gas distribution network with regional gas distribution companies shipping gas to the final consumer.	No underground gas pipelines in close proximity to the building	N / A	US04



US05	Other underground pipelines	Other underground pipelines may carry a variety of products and may be in private ownership. There is still a network of 'Government' pipelines which ships aviation fuel for both military and civil users.	No underground pipelines in close proximity to the building - not relevant	N / A	US05
US06	Proximity to telecommunications facilities	Electromagnetic interference may emanate from or be caused to telecommunications facilities such as radar and microwave transmitters.	No telecommunications facilities in close proximity to the building	N / A	US06
US07	Overhead telecommunication lines	Overhead telecommunications lines do not present a particular hazard in and of themselves as they run at low voltages however disruption to networks can have serious 'knock-on effects', not necessarily in the immediate vicinity of a construction site.	No overhead telecommunication lines in close proximity to the building	N / A	US07
US08	Underground telecommunication lines	The same strictures apply as with overhead lines. Lines may include highly secure installations such as international telecommunications fibre optic lines or Ministry of Defence lines, damage to which can cause widespread disruption.	No underground telecommunication lines in close proximity to the building	N / A	US08
US09	Underground water pipelines	Water supply is controlled by regional and local supply/ distribution companies. Some companies include water and waste water (sewerage) within their remit and some are water supply only. Disruption to water mains may create issues including flooding, damage to buildings/ infrastructure and pollution.	No underground water pipelines in close proximity to the building - not relevant to proposed refurbishment works.		US09
US10	Underground drainage culverts / sewers / drains	Such pipelines are likely to present health hazards to those entering into or working on them including the risk of contracting water-borne diseases. Drowning is also an ever-present risk in large/ deep tanks and chambers.	Underground surface water sewer and underground foul sewer are located on the site, running east to west. Contractor to make allowance for protective measures to be put in place when access equipment is in use in these areas.		US10
US11	Other hazard - designer to define		placeholder		US11
US12	Other hazard - designer to define		placeholder		US12
US13	Other hazard - designer to define		placeholder		US13
OTHER SITE-WIDE HAZARDS - Reference prefix 'OS'					
OS01	Presence of underground voids and other underground features	Undiscovered / uninvestigated voids can lead to sudden collapses in the ground, especially when new loadings are applied. These can include old mine workings, drainage installations, air raid shelters and the like.	No underground voids or other underground features in close proximity to the building - not relevant to proposed refurbishment works.	N / A	OS01
OS02	Land liable to flooding and inundation	Sites may include land adjacent to the sea, estuaries, rivers and lakes but also adjacent to docks, canals and the like.	Site not liable to flooding and inundation.	N / A	OS02
OS03	Poor ground in respect of structural bearing	Poor ground can lead to collapses of excavations, trenches, haul roads and site works generally.	On a previous phase of curtain walling refurbishment an area of ground collapsed around an existing drain location under the weight of the lifting machinery used for the curtain wallin. Contractor to be aware that poor ground around drain runs may be present, precautions to be taken to protect the surface finish and provide a stable base for lifting from. Structural Engineer to advise any further measures required.		OS03
OS04	Possibility of buried explosives	These may include unexploded wartime bombs and mines as well as 'lost' caches of explosive materials such as shells, grenades and bullets.	Not relevant to refurbishment works	N / A	OS04
OS05	Contaminated land	'Brownfield' sites, especially those in former industrial areas, may be heavily contaminated with a wide variety of polluting materials. Sites used for motor trade purposes may have been polluted by petrol, diesel and oils.	Not relevant to refurbishment works	N / A	OS05
OS06	Contaminated existing structures inc. presence of asbestos	Crocidolite and amosite asbestos types were banned in 1985. Chrysotile asbestos use was only finally banned in construction in 2000. Always consider that asbestos may be present in buildings constructed before 2000. Building owners have a legal duty to manage asbestos under The Control of Asbestos Regulations.	Riverside Type 3 Asbestos report ref. J237536 confirms ACMs are present. Chrysotile asbestos has been identified in the boarding to the rear of the glass façade, within the existing floor tiling/ adhesive backing and the putty/ mastic to the window frames. The contractor shall report immediately to the contract administrator if any further suspected asbestos materials are discovered at a later date. Such materials shall not be disturbed and safe methods of removal agreed with the contract administrator.		OS06
OS07	Site subject to extreme weather events	These may include sites locally exposed to high winds or surge tides	Building not subject to extreme weather events	N / A	OS07
OS08	High ambient noise levels	High ambient noise levels from neighbouring site activities may cause distraction to construction workers and prevent warning sounds being heard, for example from vehicle/ plant horns. Sudden noises such as caused by aircraft overflying the site at low level may also be problematical.	Site not exposed to loud ambient noise levels.	N / A	OS08
OS09	Hazards arising from the Client's existing site activities	Industrial clients in particular may have a whole range of processes being undertaken in their properties producing, heat, fumes, flames, gases and ash together with liquid toxic wastes	Site not exposed to hazards arising from existing site activities.	N / A	OS09
OS10	Potentially dangerous electromagnetic radiation	Be aware of radio, radar and microwave transmitters which require safety stand-off distances. Equipment on existing building roofs may have to be switched off during construction activities.	No known electromagnetic radiation on or in close proximity to site.	N / A	OS10

OS11	Poor air quality	This hazard may arise from the client's site activities, from neighbouring site activities or during local air pollution events such as regular 'smogs'.	No known poor air quality.	N/ A	OS11
OS12	Potentially dangerous site flora	This category can include invasive species such as Japanese Knotweed which can damage buildings and pavings and species such as Giant Hogweed, the sap of which causes skin burns.	No known dangerous site flora.	N/ A	OS12
OS13	Potentially dangerous site fauna	This can include vermin and their products, for example bird droppings. Potentially dangerous animals include gulls. In some locations, both coastal and inland, gulls will 'dive bomb' people and construction operatives working on roofs can be at particular risk if gulls are nesting close by.	No known dangerous site fauna.	N/ A	OS13
OS14	Other hazard - designer to define		placeholder		OS14
OS15	Other hazard - designer to define		placeholder		OS15
OS16	Other hazard - designer to define		placeholder		OS16

Section 2 - Hazards to be mitigated and/ or controlled that occur in the Construction Phase - Reference prefix 'CH'

Ref.	Hazard	General Notes & Prompts	Designer's Mitigation / Control Notes	RAG	Ref.
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*Note - It is the responsibility of the Principal Contractor to plan, co-ordinate and control site activities to eliminate or reduce risks to health and safety for its workers in the construction phase. Notwithstanding, it is also the duty of the Designers to consider the health and safety implications of their designs at all project stages and play a full role in eliminating or reducing risks to health and safety which may occur on the construction site. Review the listed hazards against your design and specification choices and record your contribution to eliminating, mitigating or controlling the risks to health and safety that will occur during the construction phase.*

CH01	Drowning	Could your design be modified such that buildings and external works are not immediately adjacent to bodies of deep water or so that workers do not have to work directly over the water?	No known deep bodies of water identified.	N/ A	CH01
CH02	Other water-related health risks inc. diseases	Could your design be modified such that workers are less exposed to working around bodies of water which could be contaminated with sources of pollution, whether chemical or biological?	No known other water-related health risks to consider.	N/ A	CH02
CH03	Injury from collapse of ground and/ or building substructures	Could your design be modified such that workers are less exposed to working in deep excavations or where the ground conditions are unstable? The civil/ structural engineer should also be able to make a contribution to such mitigations.	The proposed refurbishment works do not involve any excavation works. Contractor to be aware that poor ground around drain runs may be present, precautions to be taken to protect the surface finish and provide a stable base for lifting from. Structural Engineer to advise any further measures required.		CH03
CH04	Injury from collapse of building superstructures	Could your design be modified such that workers are less exposed to collapses? For example, could masonry walls - which can be unstable before being fully tied together or before the mortar has set - be replaced with framed or stud partitions?	The project involves small areas of infill using SFS and a masonry outer leaf at first, second and third floor, Contractor to ensure that appropriate measures are in place during construction to mitigate risk to workers and building users below..		CH04
CH05	Injury from impact by site vehicles / site plant movements	Could your design be modified such that there is more space around the building on the site to permit safer manoeuvring of vehicles/ plant such as lorries, excavators, dumpers, telehandlers, MEWPs and so on? Can you make better use of the site to permit segregation of pedestrians?	The existing building is set back from the main vehicular access drive, vehicle and plant use to be carefully planned to ensure safe manoeuvring Contractor to ensure construction traffic and management plan created to separate vehicle and operatives wherever possible. Vehicle and plant use to be carefully planned, particularly with respect to access to rear of the building where access is restricted Contractor to ensure that appropriate measures are in place during construction to mitigate risk to workers.		CH05
CH06	Injury related to falling objects	Could your design be modified such that workers are less exposed to falling objects? For example, is prefabrication of cladding and roofing into larger physical units a possibility to reduce the opportunities for smaller components - e.g. roof tiles - to fall?	The façade refurbishment involves the prefabrication of large units of glazing/ panels to form the curtain walling replacement. Areas of infill to the external walls have designed as SFS with a masonry outer leaf. Contractor to ensure that appropriate measures are in place during construction to mitigate risk to workers and provide method statements where necessary.		CH06
CH07	Injury related to falls from height	Could your design be modified such that workers are less exposed to falls from height? For example, can the cladding and roofing design contribute to guarding against falls by means of parapets? Could the permanent stairs be used during construction to obviate use of temporary stairs?	Due to the nature of the project being the refurbishment of an existing building, the existing stairs can be used throughout the construction period. The existing curtain walling is to be replaced to the rear elevations including the side and front elevation of centre dance. There are some areas of flat roof to the rear of the building which may provide safe access/ working area to the floors above. Contractor to ensure that appropriate measures are in place during construction to mitigate risk to workers and provide method statements where necessary.		CH07
CH08	Injury from chemicals and the like	Could your design be modified such that workers are less exposed to hazardous materials? For example, could liquid coatings such as paints be specified as water-based products rather than solvent-based?	Water-based paints and non-hazardous materials/ products to be specified where possible.		CH08

CH09	Respiratory injury from site operations inc. cutting concrete and the like	Could your design be modified to reduce concrete cutting/ drilling/ grinding by better planning and/ or specification? For example, ideally all holes through concrete floor slabs for services should be pre-planned and cast insitu to avoid subsequent concrete drilling operations.		N/ A	CH09
CH10	Injury from exposure to excessive noise	Could your design be modified to reduce exposure to noise? For example, bored piling is a potentially quieter operation than percussive piling. The civil/ structural engineer should also be able to make a contribution to such mitigations.	No injury from exposure to excessive noise envisaged - no requirement for foundations	N/ A	CH10
CH11	Burns / scalds / cuts	Could your design be modified to reduce the occurrences of 'hot works'? For example, can steel components be bolted together rather than welded? Can metal pipework be specified to obviate soldering? The relevant engineers should also be able to contribute to such mitigations.	Any hot works required to be assessed by the contractor and detailed in their method statements		CH11
CH12	Injury from slips / trips / falls	Could your design be modified such that the site can be more readily kept in a clean, tidy and workmanlike state. For example, large quantities of waste being generated - e.g. timber offcuts, plasterboard - may result in trip hazards if not constantly tidied away to skips.	Due to the nature of the project being the refurbishment of an existing building the project involves an extensive amount of stripping out. Contractor to ensure that there is adequate disposal systems in place to mitigate tripping hazards. Safe routes to be maintained for personnel. Contractor to ensure that appropriate measures are in place during construction to mitigate risk to workers.		CH12
CH13	Trapping inc. in confined spaces	Could your design be modified to reduce the occurrences of confined spaces? For example could one large service riser be substituted for a number of smaller risers?	Existing risers/ plant positions are to be retained.	N/ A	CH13
CH14	Injury from fire	Could your design be modified to reduce opportunities for fires to be started? For example, could a cold-applied roof membrane be specified instead of a 'torch-on' type? Could masonry be substituted for timber-framed construction which has a high fire load before covering in?	The facade refurbishment will be a combination of replacement curtain walling, SFS and masonry outer leaf infill. Any existing steel framing exposed and requiring to be encased and/ or coated with intumescent paint in line with advice from the BCO.		CH14
CH15	Musculo-skeletal injuries form heavy lifting and the like	Could your specification be modified such that workers do not have to repetitively lift heavy weights? For example, can smaller unit sizes of masonry blocks - 'midi blocks' - or concrete paving slabs be specified?	Due to the nature of the project being the refurbishment of an existing building the works requires the lifting of heavy sections of glazing/ panelling, specialist lifting equipment is to be used to lift materials into place.. Contractor to ensure that appropriate measures are in place during construction to mitigate risk to workers.		CH15
CH16	Vibration injuries from vibrating tools	Could your design be modified such that workers do not constantly have to break out concrete or masonry? For example, can service holes in concrete be pre-planned and cast insitu not have to be cut out later?		N/ A	CH16
CH17	Other hazard - designer to define		placeholder		CH17
CH18	Other hazard - designer to define		placeholder		CH18
CH19	Other hazard - designer to define		placeholder		CH19

Section 3 - Register of Residual Risks after Handover in the Use, Maintenance and Demolition Phases

Which site-wide issues from the Design and Construction Phases have remained as Residual Risks in the completed building?

Ref.	Residual Risk	General Notes	Designer's Mitigation / Control Notes	RAG	Ref.
	Residual Risk arising from a Site Feature Hazard				
RR0 1	Item - define		placeholder		RR0 1
RR0 2	Item - define		placeholder		RR0 2
RR0 3	Item - define		placeholder		RR0 3
RR0 4	Item - define		placeholder		RR0 4
RR0 5	Item - define		placeholder		RR0 5
RR0 6	Item - define		placeholder		RR0 6
RR0 7	Item - define		placeholder		RR0 7
RR0 8	Item - define		placeholder		RR0 8
RR0 9	Item - define		placeholder		RR0 9
RR1 0	Item - define		placeholder		RR1 0
	Residual Risk arising from Utilities & Services				
RR1 1	Item - define		placeholder		RR1 1
RR1 2	Item - define		placeholder		RR1 2
RR1 3	Item - define		placeholder		RR1 3
RR1 4	Item - define		placeholder		RR1 4
RR1 5	Item - define		placeholder		RR1 5
RR1 6	Item - define		placeholder		RR1 6

RR1 7	Item - define		placeholder		RR1 7
RR1 8	Item - define		placeholder		RR1 8
RR1 9	Item - define		placeholder		RR1 9
RR2 0	Item - define		placeholder		RR2 0
	Residual Risk arising from Other Site Hazards				
RR2 1	Item - define		placeholder		RR2 1
RR2 2	Item - define		placeholder		RR2 2
RR2 3	Item - define		placeholder		RR2 3
RR2 4	Item - define		placeholder		RR2 4
RR2 5	Item - define		placeholder		RR2 5
RR2 6	Item - define		placeholder		RR2 6
RR2 7	Item - define		placeholder		RR2 7
RR2 8	Item - define		placeholder		RR2 8
RR2 9	Item - define		placeholder		RR2 9
RR3 0	Item - define		placeholder		RR3 0

What are the Residual Risks associated with the finished building itself?

Ref.	Residual Risk in the finished building(s)	Notes	Designer's Mitigation / Control Notes	RAG	Ref.
RR3 1	Risks associated with access to high areas - externally	These are common residual risks and likely to be present	placeholder		RR3 1
RR3 2	Risks associated with access to high areas - internally	These are common residual risks and likely to be present	placeholder		RR3 2
RR3 3	Risks associated with cleaning high areas - externally	These are common residual risks and likely to be present	placeholder		RR3 3
RR3 4	Risks associated with cleaning high areas - internally	These are common residual risks and likely to be present	placeholder		RR3 4
RR3 5	Risks associated with replacing building fabric - externally	These are common residual risks and likely to be present	placeholder		RR3 5
RR3 6	Risks associated with replacing building fabric - internally	These are common residual risks and likely to be present	placeholder		RR3 6
RR3 7	Risks associated with maintaining M&E plant - internally	These are common residual risks and likely to be present	placeholder		RR3 7
RR3 8	Risks associated with maintaining M&E plant - externally	These are common residual risks and likely to be present	placeholder		RR3 8
RR3 9	Risks associated with dismantling / removing M&E plant	These are common residual risks and likely to be present	placeholder		RR3 9
RR4 0	Risks associated with demolishing building structures	These are common residual risks and likely to be present	placeholder		RR4 0
RR4 1	Risks associated with incorporated building materials	These are common residual risks and likely to be present	placeholder		RR4 1
RR4 2	Item - define		placeholder		RR4 2
RR4 3	Item - define		placeholder		RR4 3
RR4 4	Item - define		placeholder		RR4 4
RR4 5	Item - define		placeholder		RR4 5
RR4 6	Item - define		placeholder		RR4 6
RR4 7	Item - define		placeholder		RR4 7
RR4 8	Item - define		placeholder		RR4 8
RR4 9	Item - define		placeholder		RR4 9
RR5 0	Item - define		placeholder		RR5 0
RR5 1	Item - define		placeholder		RR5 1