



Pre-Construction Information

London Road Fire Station, 50 London Road, Manchester, M1 2PH

Allied London Fire Station Ltd

24 January 2020





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1.0 Pre-Construction Information

The information should be in a convenient form and be clear, concise and easily understandable to help other duty holders involved in the project to carry out their duties.

The pre-construction information is structured in accordance with Appendix 2 "pre-construction information" of the "Managing Health & Safety in Construction, Construction (Design & Management) Regulations 2015 Guidance on Regulations" [L153 - 978 0 7176 6626 3].

What is pre-construction information?

Pre-construction information provides the health and safety information needed by: -

- Designers and contractors who are bidding for work on the project, or who have already been appointed to enable them to carry out their duties;
- Principal designers and principal contractors in planning, managing, monitoring and coordinating the work of the project.

Pre-construction information provides a basis for the preparation of the construction phase plan. Some material may also be relevant to the preparation of the health and safety file.

Pre-construction information is defined as information about the project that is already in the client's possession or which is reasonably obtainable by or on behalf of the client. The information must:

Be relevant to the particular project;

- Have an appropriate level of detail; and
- Be proportionate to the risks involved.

Pre-construction information should be gathered and added to as the design process progresses and reflect new information about the health and safety risks and how they should be managed.

Preliminary information gathered at the start of the project is unlikely to be sufficient.

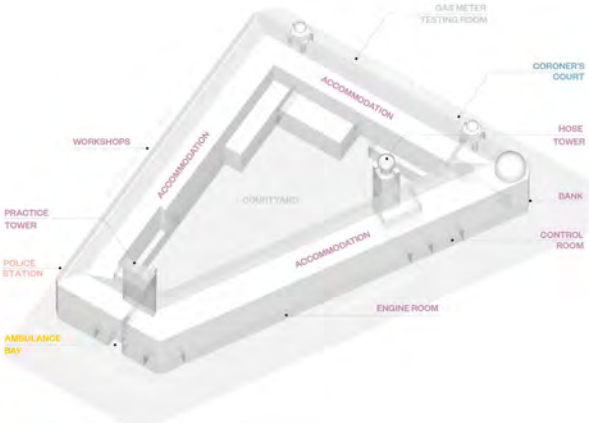
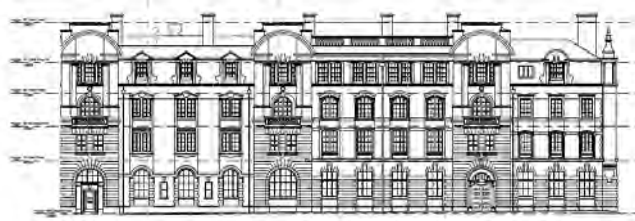
When pre-construction information is complete, it must include proportionate information about: -

- The project, such as the client brief and key dates of the construction phase;
- The planning and management of the project such as the resources and time being allocated to each stage of the project and the arrangements to ensure there is cooperation between duty holders and the work is coordinated;
- The health and safety hazards of the site, including design and construction hazards and how they will be addressed;
- Any relevant information in an existing health and safety file.
- The information should be in a convenient form and be clear, concise and easily understandable to help other duty holders involved in the project to carry out their duties.

1.1 Duty Holder Appointments

- If more than one contractor will be working on the project then, a principal designer and a principal contractor will be appointed in writing.
- Those that are proposed to be appointed must be able to demonstrate that they can deliver the project in a way that secures health and safety. This means that they should: -
 - have the necessary capabilities and resources
 - have the right blend of skills, knowledge, training and experience

- understand their roles and responsibilities when carrying out the work.
- We use a Safety Schemes in Procurement (SSIP) member-assessed scheme to find designers or contractors who have been assessed and confirmed by a SSIP Forum member as meeting acceptable health and safety standards. Proof of this needs to be provided.



Description of project

Outline proposal and planning approval for the project is as follows:-

- The consent is for full planning permission and listed building consent for the refurbishment, restoration, reconfiguration and extension of the former London Road Fire Station to create a mixed use development comprising of hotel (Use Class C1), workspace/office (Use Class B1, D1), commercial floorspace for shop and food and drink uses (Use Classes A1, A3 and A4), residential apartments (Use Class C3) and leisure (Use Class D2), together with access and highways works, servicing, rooftop plant, landscaping and associated work.
- LISTED BUILDING CONSENT for internal and external works in association with refurbishment, restoration, reconfiguration and extension of former London Road Fire Station site to create a mixed use development comprising of hotel, workspace/office, commercial floorspace for shop and food and drink uses, residential apartments, cinema and spa, access and highways works servicing, rooftop plant, landscaping and associated work.

2.1 Project description

- This phase of works focuses on the restoration of the external building fabric and soft strip of asbestos internally to the grade II listed London Road Fire Station prior to its conversion and redevelopment to be put back into use as a mixed use Commercial building.
- The works will also consist of external scaffolding and temporary enabling works including structural propping, material sampling and investigation, masonry and metal cleaning and repairs, window, door and rainwater goods replacement, repairs to the roof and towers, timber repairs, and the installation of steel frames and other associated works to ensure the structure is fit for the future construction phases.
- The works are being managed through the release of targeted Works Packages to ensure effective control of the restoration and impact on the public realm and core strategy for restoration.

2.2 Key dates and programme Information

- Reference is made to the Project Programme issued under separate cover and the F10 Notification given at Appendix 1.

2.3 Mobilisation period

- The amount of time allowed for the appointed principal contractor's planning and preparation before starting construction work on site is 2 weeks.

2.4 F10 Notification and duty holders

- The HSE F10 has been submitted to the HSE commencing 03/09/18 for 82 weeks running until 30/03/20
- All key duty holders under the CDM Regulations are listed.

2.5 Structures used as a workplace

- The structure will need to be designed to take account of the relevant requirements of the Workplace [Health, Safety & Welfare] Regulations 1992.

2.6 Existing records and plans

- There are detailed existing and proposed GA plans and drawings for the project and these will be made available by the Design Consultants covering Architectural (Purcell) MEP (CWC) and Structural (Curtins). Refer to the respective Drawing Registers.
- Asbestos Refurbishment Survey
Acorn Analytical Services
Ref B-00191
03 July 2015
- Asbestos Management Survey
Asbestos Assessment & Control
Ref AAC20160305/01
03 May 2016
- Refurbishment / Demolition Survey
Asbestos Assessment & Control
13-21 September 2017
- There is a series of existing drawings produced by:-
- Chris Partington Land Surveyors
Drawings No 09 10jc-02 Site Survey
Drawings No FS7.2-MS-00 Basement Floor
Drawings No FS7.2-MS-02 First Floor
Drawings No FS7.2-MS-03 Second Floor
Drawings No FS7.2-MS-04 Third Floor
- Malcolm Hughes Land Surveyors.
Drawings No 12396/ Elevation C
Drawings No 12396/ Elevation D & E
Drawings No 12396/4 Elevation F & G
Drawings No 12396/5 Elevation H&J
- There are also existing elevation drawings by Prestwich Design Group, these are untitled.
- Intrusive investigations, drawings and sampling are ongoing at this time to assess elements of the existing building fabric for dilapidation and deleterious materials these include:
- London Road Fire Station
Detailed Visual Inspection Report
Curtins
Ref O60270
08 April 2016
- London Road Fire Station
Listed Building Structural Report



Curtins
Ref O60270 Rev 04
27 November 2019

- London Road Fire Station
Proposed Schedule of Intrusive Investigations
Curtins
Ref O60270 Rev 01
April 2016
- London Road Fire Station,
Phase 1 Preliminary Site Assessment
Curtins Ref: B060270.001/APA/6737
Revision: C Issue Date: 6 Dec 2019
- London Road Fire Station Balcony Opening-Up Works Report
Curtins Ref: 60270-CUR-00-XX-RP-Z-00004
Revision: V01 Issue Date: 13 January 2020
- London Road Fire Station
Drill Tower - Proposed Schedule of intrusive investigations
Curtins Ref: 60270-CUR-00-XX-RP-Z-00002
Revision: V02 Issue Date: 14 June 2019
- SOCOTEC Monitoring UK Ltd Laser Survey for LRFS.
22304 1&2 ELEVATIONS LONDON ROAD FIRE STATION
MANCHESTER, LM Surveys 28.08.19, reference 1335.
- Proposed GA plans Purcell Architectural
- Proposed GA plans Curtins Structural
- Proposed GA Plans CWC MEP
Revised Planning Submission documents:
- Consent was Granted in July 2017 for the conservation led refurbishment and reuse of the building (reference 116099/FO/2017)
- Planning & Listed Building Statement for Allied London Fire Station, Zerum, December 2019
- Statement of Community Consultation prepared by Zerum, contained within this document;
- Consented Design and Access Statement including Lighting and Signage Strategies produced by Levitt Bernstein
- Design and Access Addendum prepared by Purcell;
- Fixture and Fitting Strategy prepared by Levitt Bernstein;
- Condition and General Fabric Survey and Repair Method Statement prepared by Heritage Architecture;
- Structural Report including plans prepared by Curtins;
- Flood Risk Assessment prepared by Curtins;
- Phase 1 Ground Conditions Survey prepared by Curtins
- Heritage Significance Statement prepared by Heritage Architecture;
- Heritage Impact Statement prepared by Heritage Architecture;
- Tenant Design Guide prepared by OBI;
- Archaeological Desk Based Assessment prepared by Salford Archaeology;
- Ecological Survey prepared by Tyrer Partnership;
- Transport Statement prepared by Vectos;
- Framework Travel Plan prepared by Vectos;
- Waste Management Strategy prepared by Vectos;
- Acoustic Assessment prepared by Sandy Brown;
- Energy Statement prepared by Crookes Walker Consulting;
- M&E Strategy including plans and Ventilation Strategy prepared by Crookes Walker Consulting;

- Environmental Standards Statement and BREEAM Pre-Assessment prepared by Element Sustainability;
- Crime Impact Statement prepared by Greater Manchester Police;
- Operations Management Plan prepared by Allied London and All Work & Social;
- Coroners Court Document prepared by Allied London;
- Essential Fabric Repairs Schedule prepared by Allied London;
- Construction Management Plan prepared by Allied London;
- Visual Survey Document prepared by Levitt Bernstein.

3.0 Environmental restrictions and existing on-site risks

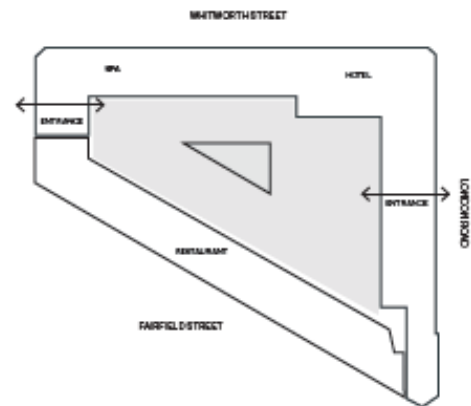
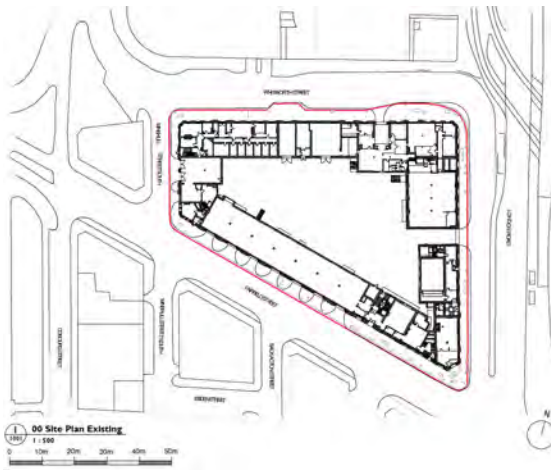
3.1 Safety hazards

The designers and principal contractor are required to take appropriate measures to eliminate hazards and reduce risks created by the works and the surrounding environment.

Explanation of the proposed measures is to be included with the form of a detailed site-specific method statements submitted before that element of the work commences.

The safety hazards on the project include: -

- Possible mould/spores.
- Ecological impacts
- Structural Collapse from failed structural elements
- Weil's Disease
- Electric shock- live electrics
- Legionnaires disease from static water
- The poor condition to façade elements, masonry and roof.
- Protection of the public and 3rd parties.
- Falling equipment and materials on to the road or footpath.
- Surface treatments.
- Cleaning Chemicals.
- Fragile roofs.
- Asbestos exposure and other substances
- Exposure to Lead containing materials
- Anthrax spores from old plaster and horse hair
- The nature and sequence of the works themselves.
- Working at height.
- Asbestos – not picked up/identified in required asbestos R&D surveys.
- Temporary Works.



3.1.1 Boundaries and access

- The site is bounded by London Road, Whitworth Street, Minshall Street and Fairfield Street and is opposite the Grade II listed train shed at Piccadilly Station and the Grade II listed former Goods Offices to Piccadilly Station. The site is within the Whitworth Street Conservation Area. The building has a high importance within the Whitworth Street Conservation Area, which was extended in June 1985 to include it.
- The site boundaries are indicated in red on the planning submission above map with Ordnance Survey reference 100019568
- The boundaries are defined by the building itself with the project being generally confined to the footprint of the building with the addition of footpath space for external scaffolding.
- Access will generally be into the internal courtyard which is from the entrance on London Road.
- All staff, visitors, and the public must be adequately protected from the construction works at all times by the use of hoardings, barriers, etc.
- Notices must be clearly displayed showing pedestrian routes and areas that are out of bounds.
- Due to the triangular form of the building, boundary access is from multiple areas and consideration for access to the site for construction works and delivery and storage laydown areas in required. Current main access from gate Entrance of London Road and side entrance for biometric turnstile worker access off Fairfield Street are in place.
- Public Realm interfaces and protection of public are integral to this project.

3.1.2 Deliveries, waste collection or storage

- A detailed Construction Management strategy has been prepared by the Client setting out the guidelines and methodology which are to be followed by the principal contractor, reference is made to the Outline Construction Management and Phasing Statement Section 2.6 which is included in the tender documents.
- Working hours are anticipated to be 8am to 6pm Monday to Friday with all deliveries within the same period unless by pre-arrangement.
- Occasional weekend working is anticipated such as materials movement within the site to create space to ease deliveries and traffic congestion for the following weeks work, These must be agreed with the MCC. Any further out of hours working will be generally limited to internal fit out operations.
- The proximity of residents / offices on Fairfield Street, Minshall Street and Whitworth Street is a consideration. The methodology contained in this document is to be followed by the appointed contractor in protecting the residential amenity.
- To reduce the impact on the local community most deliveries to and from the project will be into the courtyard via London Road or via Munshell Street South.
- The courtyard area will be used as the main material staging and laydown zone.
- Waste material will be screened and sorted, prior to removal via skips. A site waste management plan will be put into place by the contractor.
- A detailed logistics and traffic management plan will need to be developed by the Principal Contractor to demonstrate how public safety will be managed during vehicle movements, this



must conform to the strategy outlined in the Client guidelines for the plan reference Outline Construction Management and Phasing Statement Section 2.6.

- Site walkway/pedestrian routes will be segregated wherever possible, and any interfaces with vehicle movements within the site will be controlled by a vehicle marshal.
- Movement of contractors' vehicles will need to be closely supervised and controlled, with a timed booking system, ensuring that congestion is avoided on the access road and minimising the effects on the local roads and to the local environment.
- The principal contractor should liaise as appropriate regarding deliveries, waste collection, or storage.

3.1.3 Existing services

- All services to the site have been identified and Temporary lighting and welfare provisions have been established.
- Where details are not available or unclear the contractors must carry out scanning and proceed with caution.
- It should be noted that the actual position of utilities will need to be established prior to construction commencing, and further coordination will be necessary to finally establish interfaces, incoming locations and diverse routes, prior to completion of the next stage of the design process.

3.1.4 Ground conditions

Geology

- A number of surveys are available and Curtins have confirmed the following from the Phase 1 Preliminary Site Assessment:-
- The following geological succession underlying the site.
 - Made Ground (Undivided)
 - Till, Devensian (Diamicton)
 - Chester Pebble Beds Formation - Sandstone
- Average made ground depth in this area has been recorded as between 3.35m and 8.84m bgl, Bedrock was encountered at depths of between 8.84m and 10.06m bgl.
- Although is an area likely to be affected by previous Coal mining the likelihood of encountering relic mining features on site is considered to be unlikely and therefore has not been considered further.
- An Envirocheck report of the area confirms that there is a very low risk to no hazard from the following ground stability hazards on and around the site; running sands, collapsible, landslides shrinking or swelling clay, compressible ground and ground dissolution
- The BGS Radon Mapping confirms part of the site is situated in a low probability radon area as less than 1% of homes are above the action level. On this basis, radon protection measures are not considered necessary within the proposed development and have not been considered further.

Hydrology

- The nearest identified surface water feature is located approximately 41m to the north-west of the site.
- There are no surface water abstractions recorded within 1000m of the site.
- There are no discharge consents, Local Authority Pollution Prevention and Controls permits or pollution incidents to Water Environment arising from the site.



- The site is not situated in an area that is known to be at risk from extreme flooding or flooding from rivers or sea. A number of locations across the centre and the southern boundary of the site are suggested as being of low risk (1000 year return period) to flooding from surface water. The northern boundary of the site appears in a location which may be susceptible to high (30 year return period), medium (100 year return period) and low (1000 year return period) Surface water flooding.

UXO Risk

- Analysis of known bomb drop locations, presented during war years, indicates a number of positions in close proximity to the sites western boundary were affected.
- The nature of the land use as, engineering works and housing emergency services suggests it would be a targeted site for bombing raids.
- Limited subsequent development or ground disturbances suggest limited chance for UXO disturbance or discovery
- With the amended consented scheme the extent of ground disturbance with the new excavated courtyard basement in abeyance the proposed development works are likely to be at reduced risk from UXO risk which is considered to be low.
- The provision of a Detailed Unexploded Ordnance report is recommended prior to development works commencing where this risk is increased.
- Any earthworks, excavations and trenching that take place should still consider the UXO risks and suitable boreholes, trial pits and survey and suitable excavation methods should be employed.

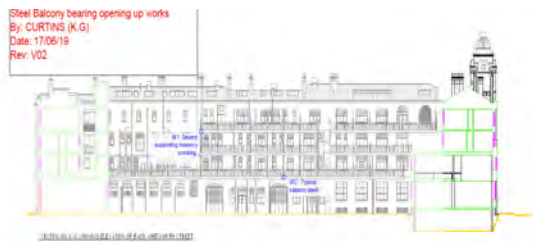
Heritage

- The former Fire and Police Station has been identified as having potential heritage assets underneath in the form of former dwellings linked to its historical past
- Any excavations on site must be supported by sufficient geotechnical ground surveys to ensure that any heritage structures are identified.
- The site has potential for archaeological remains to be present, particularly from the industrial period and worker's houses. Prehistoric, Roman or Medieval remains are not anticipated to be present at the site.
- Groundworks, including those involved in the excavation of the courtyard, have the potential to directly impact or damage



the below-ground remains that may have survived in situ. A programme of further investigation is therefore proposed to comprise evaluation trenching. Should any significance intact remains be found, an open-area excavation is likely to be required and a written scheme of investigation produced.

- Ongoing liaison with Greater Manchester Archaeological Advisory Service GMAAS and MCC Listed Building consents Conservation Officers will be required and a programme of investigation and inspection. This is likely to comprise a programme of evaluation trenching, and ongoing inspection visits to verify works are being completed in accordance with conditions and provide detailed advice on the development of the building through its restoration and refurbishment phase



3.1.5 Existing structures

- The building is a Grade II* listed building, which has been largely vacant since 1986. A former Fire and Police Station headquarters this is a highly prominent building, which occupies an entire block within the Whitworth Street Conservation Area and is one of Manchester's most important heritage assets, being an outstanding example of municipal development. The building is consequently of national significance, and is unusually complete in terms of its surviving architectural detailing and features..
- The building is a series of four-storey interconnected buildings forming a single structure that follows the back of pavement with a large central courtyard. In addition to the Fire and Police Stations and residential accommodation,
- The building also accommodated other functions, including a bank, the Coroner's Court, a gas meter testing station and an ambulance station. Its exterior is constructed of red brick, terracotta and architectural sculpture.
- The Internal courtyard consists mostly of red brick, with distinctive cast iron balconies to the upper floors.
- A Heritage Impact Assessment concluded that the proposal would result in limited instances of minor or moderate adverse impact, but no instances of significant adverse impact.
- There are various surveys and drawings available, these are



referenced in section 2.6

- Due to the dilapidation of the existing building fabric and structural issues with key features such as the Drill Tower and Hose Drying Tower and internal steel balcony a full intrusive structural investigation process is to be undertaken to establish the structural propping requirements to make the building safe for future works. These include:-



- Investigation of lintels, footings, steelwork, window frames and roof and rainwater goods.
- A strategy for repair to the structural fabric and underpinning and reinforcements.
- A full laser survey of the Drill Tower and associated elements of LRFS has been undertaken by SOCOTEC Monitoring UK Ltd refer to survey drawings and results detailed in section 2.6
- A survey and opening up of the internal steel balcony areas to assess structural integrity and options for refurbishment or replacement and the impact on the future design refer to Curtins report London Road Fire Station Balcony Opening-Up Works Report Curtins Ref: 60270-CUR-00-XX-RP-Z-00004 Revision: V01 Issue Date: 13 January 2020.

3.2 Health hazards

3.2.1 Asbestos

- There are various surveys available, these are referenced in section 2.6. This work may be carried out by a client appointed contractor but will fall under the Principal Contractor to control.
- An extensive programme of asbestos removal from 03/12/18 to 05/02/19 has been implemented during the soft strip and enabling works phase of the restoration to remove the core asbestos materials in the ceiling voids and dispose of this.
- Asbestos insulation in the form of Chrysotile was removed by a specialist contractor under a HSE ASB5 license and all known asbestos was removed under controlled conditions and air sampling and reoccupation certs were issued.
- Should any additional materials containing asbestos be found during the works, the principal contractor must be notified immediately and the area must not be disturbed until the material has been investigated.
- There are various asbestos surveys for the site which are referenced in section 2.6.
- All asbestos works must be overseen by the Principal Contractor. To ensure they follow regulatory requirements.
- Considerable amounts of asbestos have been located principally in the ceiling voids of the existing structure.



- Specialist asbestos contractors and waste removal will be required to ensure that the asbestos is removed according to asbestos regulations with the necessary HSE notification AB5.
- Works executed in relation to asbestos based materials should be sufficient to comply with Health & Safety Executive Guidance Notes and current regulations.

3.2.2 Client activities

- A specific site induction will be administered by the Principal Contractor.
- All personnel are required to, as a minimum sign 'In' and 'Out' of site on all occasions to comply with our procedures for emergency evacuation and roll call.
- All deliveries are to be confirmed 24 hours in advance, and will make contact with Site Management upon arrival on site and will then be supervised for entry to site and unloading by way of a banksman/traffic marshal.
- A means of escape must be continually maintained by the contractor, his employees, agents, and sub-contractors etc. for all personnel, and adjacent properties.
- Noise and vibration levels will be closely monitored throughout the period of works.
- The Principal Contractor will, if required carry out liaison with the local residents with regard to the project works prior to works commencing as well as keeping them informed of the key upcoming events throughout the duration of the works and how they are likely to be affected by it.
- **Letter drops:** will be carried regularly throughout the works. Extra mitigation measures may be installed to reduce environmental factors affecting neighbours.

4.0 Design Information - significant design and construction hazards

4.1 Significant design assumptions and suggested work methods, sequences or other control measures

- This is still being developed at this time, as details and designs are developed they will be made available to the contractor.
- The focus of this will be Temporary Works and structural remediation to ensure the building is safe for future purposes and is ongoing at this time and informed by intrusive investigations and examination of the condition of the existing building fabric.
- The designers and principal contractor are required to take appropriate measures to eliminate hazards and reduce risks created by the works and the surrounding environment.
- Explanation of the proposed measures is to be included with the form of a detailed site-specific method statements submitted before that element of the work commences.

4.1.1 Site Deliveries & Working Hours

- Site deliveries will need to be carefully planned to avoid peak times and possible congestion on London Road.
- The working hours for the project will generally be Monday to Friday 08:00 to 18:00 Saturday 8:00 am to 13:00, Sunday and Bank Holidays (normally) unless otherwise stated in the planning permission or the client.
- Consideration should be given to early/late deliveries and collections to reduce any traffic congestion during the peak periods, subject to agreement with the MCC Local Authority.
- Where working is required outside of the above hours due to unforeseen circumstances, emergencies or planned work that

can only occur outside of the core hours, then these will be undertaken following communication with the Local Authority and local residents / businesses

- The safety of delivery vehicles is heavily reliant upon the drivers of the vehicle and security of the load.
- Contractors will be required to work closely with the supply chain to ensure the use of reputable haulage companies with good safety standards and act when these standards are not met.
- Traffic marshals shall be clearly visible wearing orange hi-visibility clothing and be located at the site entrance to deal with any pre-booked delivery wishing to drop off materials or plant to the project.
- Traffic marshals will need to be in radio contact with the site management team and the banksman.
- The site and or logistics manager will need to carefully co-ordinate and plan deliveries, working on a just in time basis to a controlled schedule we will ensure that larger loads are delivered avoiding peak traffic periods.

4.1.2 Plant Operation

- Consideration must be given to the risks associated with mobile access and craneage plant working in close proximity to the public, highways and adjacent structures.
- The use of cranes is likely to be required during the main phase of works. The positioning, heights and oversail will be determined after engagement with a contractor and the appropriate consent is sort.
- Any temporary road closures / lane closures / parking bay closures will be agreed with Manchester City Council operational services department together with any special logistical requirements.
- Effective use of appropriate hoarding will protect the public from on-site plant movements and protect site operatives from private vehicles.
- The provision of suitable visibility splays at site access points and keeping all gates closed when not in use may compliment this.

4.1.3 Working above Pedestrians

- The combined use of hoarding, netting and scaffold fans or bridges will need to be utilised to protect the public should material or tools be dropped from height. Tethering is to be adopted.
- Good systems of manual handling and site housekeeping will reduce the initial risk of falling objects from scaffolds.
- Temporary works and plant inspection procedures will ensure the safety of any mechanical lifting equipment and accessories [tower cranes and material hoists.]
- Correct material slinging, security of loads and safe plant operation will be managed through the controlled selection of qualified, competent and suitably experienced plant operating and monitoring teams.

4.1.4 Fire Safety

- A suitable Fire Strategy is required to ensure access and egress of workers on site taking account of the variations in levels and compartments and fragile building fabric.
- Due to the Listed Building status and the extensive existing combustible fabric, the risk of fire during construction is identified and considerable.



- The Principal Contractor should ensure suitable Fire protection and wireless alarm systems are placed throughout the site and a suitable evacuation process is in place and has been tested.
- Risk of fire spread, maintaining access for emergency vehicles, maintaining personnel escape routes and maintaining life safety will need to be given utmost attention.
- The risk of fire and fire spread will need to be closely controlled by a variety of means.
- Maintaining access for emergency service vehicles throughout the works will vary from phase to phase and require close co-ordination with the owners of adjacent buildings as well as the client directly.
- Once these routes have been selected and formed, management of deliveries and material storage will be key to maintaining emergency vehicle access at all times.
- Equally, maintenance of pedestrian access routes will require close monitoring
- Once planned and established, these routes will be inspected weekly as part of a weekly fire equipment and escape procedure.
- Fire detection equipment where used will need to be maintained throughout the works.
- All protection material is to be fire rated.

4.1.5 Working at height

- Effective management of height safety is closely linked to the 'hierarchy of control,' that will be strictly implemented on this project.
- This hierarchy clearly states that PPE is the last resort, therefore mobile working platforms, fixed scaffold systems and platform hoists will be used to ensure safe access and edge protection in the event that the risk cannot be designed out.

4.2 Significant risks identified during design

- This is generally ongoing at this time as additional information comes available this will be forwarded to the contractor.
- At present the main risk with design consideration would be Temporary Works required to stabilise the building and access for strip out and refurbishment and risk of fire breakout during construction due to the amount of existing combustible materials in the building.
- Other sources of risk are in relation to the exposure to potential hazardous and harmful materials within the building fabric and there controlled removal and replacement, mainly asbestos material used on the ceiling voids and other areas.
- Reference is also made to the project CDM and H&S Risk Register which is updated to reflect the works phases and ongoing risk profile.

4.3 Arrangements for co-ordination of on-going design work and handling design changes

- As part of on-going design development regular meetings are to be held to ensure communication, the passing of information, and the securing of co-operation of all members of the project team whose health and safety may be affected.
- Designers [including those of any temporary works] are to ensure that any design changes, which may affect health and safety, are immediately notified in writing to the Principal Designer and that supporting hazard identification and risk assessments etc. are provided.

- The principal contractor is to ensure that any unforeseen eventualities regarding health and safety are immediately notified in writing to the Principal Designer and the design team.

4.4 Materials requiring particular precautions

- Details of significant hazardous materials and substances specified as part of the design that cannot be avoided or designed out are set out below. It is assumed that the contractor will be aware of the precautionary information that suppliers of materials are required by law to provide.
- No significant hazardous materials and substances have been specified as part of the design.

5.0 Client's considerations and management requirements

5.1 Roles and responsibilities

Roles and responsibilities will be those given statutorily for all parties.

5.2 Planning and managing construction work

- The principal contractor must plan, manage and co-ordinate work during the construction phase.
- The principal contractor should work with other contractors to identify the hazards and assess the risks related to their work, including the risks they may create for others. Using this information and applying the general principles of prevention the principal contractor, in discussion with the contractors involved, must plan, manage and co-ordinate the construction phase.
- The principal contractor should ensure that construction health and safety performance is monitored and recorded throughout the construction phase to ensure compliance with legal requirements and site rules.
- Arrangements should include active and reactive monitoring, such as regular, planned inspections and audits and investigations of any incidents [whether causing injury, loss or near miss] and of any complaints. This should involve co-operation and regular meetings between senior management and those who provide health and safety advice to them to review the results achieved and to determine appropriate response to achieve any necessary improvements.
- As the construction work is likely to put the client's own employees, other workers and the public at risk the client will also arrange for monitoring of construction health and safety performance, in accordance with his duties under Sections 2, 3 and 4 of the Health & Safety at Work etc. Act 1974.
- This monitoring may include
 - Hazard-spotting site tours carried out by a senior representative of the client
 - Independent construction site health, safety and welfare inspections
 - Independent audits of construction H&S management at site.
- The client will share the results of this monitoring with the principal contractor for the implementation of improvements where necessary.
- The Client's policy is to achieve 'best practice' standards on all of its construction activities. It will normally seek to exceed the minimum standard required by law.
- The identification of 'best practice' is not always easy and everyone concerned needs to consider the option and



generally err on the side of improved safety, elimination of risk and the effective control of any residual hazards.

- Design should provide for safe buildability and include for safe systems for maintenance and cleaning.
- Management both in construction and maintenance should ensure that where hazards are created or subsequently come to light they are effectively controlled and eliminated if possible in the longer term.
- In preparing safety method statements, contractors are expected to review all significant risks and adopt 'Best Practice' standards on all of its construction activities and seek to exceed the minimum standard required by law and comply with relevant guidance given by HSE or other organisation appropriate to the work activity.
- A risk assessment will be required for each operation and from this a method statement incorporating a detailed safe system of work must be produced at least 5 working days [i.e. excluding Saturday and Sunday or national holidays], before works commence on site, the requirements for which will be detailed in the principal contractors' construction phase plan.
- Every effort shall be made to reduce the impact of the development by paying particular attention to the following points:
 - Public highways and other publicly accessible roads to be kept clear of mud at all times. Where more than one developer is using the same highway then they should reach a mutual agreement on an effective means of keeping the roads clean.
 - Dust, noise, and disturbance especially at weekends.
 - Parking of employee vehicles or wagons waiting to unload.
 - Location of compound and arrangement of temporary site facilities.
- Contractors will be required to join the 'Considerate Contractors' scheme.
- The contractor is responsible for providing their own approved personal protective equipment for all tasks undertaken by his operatives, this including appropriate training for using and wearing.
- Thorough safety induction training will be required for each new person joining the project. The Client via the principal contractor will provide a safety induction where attendance will be mandatory before any access to site is permitted.
- Employees must not work on or in proximity to energised circuits of any voltage unless adequate safety measures have been taken. All portable tools and equipment must be 110v. An RCD device must protect all site accommodation.
- Holes formed during the progress of the contractors works and open edges works are to be protected by contractors using scaffold handrails, toe-boards, and platforms and where appropriate A142 mesh or safety/debris netting.

5.3 Communication and liaison

- Designers [including principal contractor when appointed in design and build capacity, and any trade contractor design supplement works] are to ensure that any design changes, which may affect health and safety, are immediately notified to the Principal Designer and that any associated hazard identification or risk assessments are provided or updated. This information will be reviewed during periodic meetings at which CDM matters are to be addressed; including

application of hierarchy of risk principals so that design proposals can be assessed throughout the design process to consider elements such as:

- How the design can be built and erected safely?
- Where work at height cannot be avoided, design in edge protection or other features that expedite safe access and erection and/or anchorage points, etc. for nets or harnesses; and early installation of permanent access.
- Designing to simplify safe construction.
- Designing to minimise health risks.
- Designing to simplify future maintenance and cleaning work.
- Demolition hazards for inclusion in the health and safety file.
- The principal contractor will ensure that prior to the award of any trade packages that an appropriate consideration is given to competence and resources.
- Where there is contractor design supplement due consideration again needs to be given to the hierarchy of risk principals identified above, and compliance with Workplace Regulations in terms of on-going maintenance and operation once construction is complete. The forum for this is the periodic meeting.
- The principal contractor must make arrangements for discussing health and safety matters with people on site and for holding regular review meetings to ensure communication, the passing of information and securing of co-operation, of all members of the project team whose health and safety may be affected.
- The principal contractor is to immediately inform the client's representative and the Principal Designer of any reportable incident prescribed under the Reporting of Injuries, Diseases & Dangerous Occurrences Regulations.
- The principal contractor will be required to attend regular progress meetings throughout the period of the works.

5.4 Security of the site

- There will be security personnel located at the Main site entrance off London Road and a security office adjacent to the main turnstile entrance off Fairfield Street to manage access / egress from the site.
- Security manning is undertaken on the main gate with perimeter patrols and 24 hr protection due to the highly visible location of the site and risk of unlawful entry.
- The principal contractor must take reasonable measures to ensure that no unauthorised person enters the work area.
- Only people who are explicitly authorised, individually or collectively, by the principal contractor, should be allowed access to the site.

5.5 Welfare provisions

- Temporary Welfare Provisions have been set up to manage the future scope and scale of works, with canteen, offices, lockers, toilets and washing facilities.
- The dedicated site office and welfare facility are located in the engine room with a biometric turnstile access point which leads onto Fairfield Street.
- The principal contractor is to ensure that there are suitable and sufficient welfare facilities provided from the start of the construction phase.



- Welfare facilities are to be provided for the entire workforce. This facility must be separate from the works area and must provide suitable and sufficient sanitary conveniences that are adequately ventilated and lit, suitable and sufficient washing facilities with hot and cold water, soap and means of drying.
- An adequate supply of potable drinking water is to be provided and appropriately signed.

6.0 Operating requirements and restrictions

The Client's operating requirements and restrictions for the project include: -

6.1 Site hoarding requirements

- As necessary, the Contractor will be responsible for the erection of temporary protective solid ply fencing along the site boundaries prior to his entry on site.
- The fencing should be regularly maintained during construction work and removed by the developer on completion of construction. The fence should be designed for wind loading, and erected to comply with the stakeholder security specification.
- The Contractor shall provide adequate warning signage, notices, hoardings, barriers, and illumination. Signage and physical barriers are to be erected to prevent unauthorised access to the works areas.
- All staff, operatives, visitors, and the general public must be adequately protected from the Construction Works at all times.

6.2 Site transport arrangements or vehicle movement restrictions

Notices must be clearly displayed showing pedestrian routes.

6.3 Permit to work system

- The principal contractor should implement a system of permits to work for high-risk activities.
- Hot works permits, electrical permits and access to roof permits are to be adopted for these works as appropriate.

6.4 Fire precautions

- As required by the 'Fire Prevention on Construction Sites: Joint Code of Practice on the Protection from Fire of Construction Sites' the principal contractor shall appoint a competent person who will be responsible for assessing the degree of fire risk and for creating and regularly updating the Site Fire Safety Plan as construction proceeds or significant design changes occur.

6.5 Emergency procedures and means of escape

- The principal contractor must develop, implement, and maintain an emergency response plan covering both health and safety and environmental issues surrounding these works.
- The principal contractor should identify emergency procedures and contact numbers for the nearest Hospital [with accident and emergency facilities, utilities and services] and display this information clearly on site, and identify clearly within their construction phase health and safety plan.
- The principal contractor will be responsible for assessing the degree of fire risk or any other emergency and formulating and regularly updating a 'Site Fire and Evacuation Plan' with 'Orders' that can be implemented in an emergency. This includes liaising with the Fire Authority and Police.
- The 'Site Fire and Emergency Evacuation Plan' should address issues such as fire detection, means of escape, muster points, emergency signs and extinguishers, hydrants and other fire protection equipment etc. sufficient to comply with 'Fire

Prevention on Construction Sites: Joint Code of Practice on the Protection from Fire of Construction Sites.

6.6 Site rules

The following are identified as 'site rules' at this time: -

- All site personnel should hold a current CSCS registration card appropriate to their role, responsibilities, and activities.
- All personnel shall undergo induction training.
- Appropriate PPE shall be worn always, with minimum requirements of hardhat, hi-visibility vest or coat, safety footwear.
- Eye and hand protection will be worn for all construction activities.
- All tasks on site will be operated on the basis of a risk assessment and method statement being supplied by the contractor and agreed by the principal contractor.
- All accidents and near miss events must be reported to the principal contractor.
- Visitors to site must comply with all security requirements and inform the principal contractor of their intentions regarding areas to visit and the number in their party prior to arrival on site.
- Whilst on site, visitors are to wear the appropriate PPE and to be escorted always by a site inducted and CSCS accredited person.
- Safety signs and notices must be complied with always.
- Safe areas of access and egress will be signed and may be altered at any time by the principal contractor. Details are to be communicated in daily site briefings.
- Areas that are deemed to be unsafe, by signs or barriers, shall not be accessed by anybody.
- Certain areas will be deemed access/entry by permit only. These areas will be signed and a permit can be obtained from the principal contractor, upon submission of appropriate documentation.
- Smoking is prohibited on all parts of the project.
- Transistor radios or personal stereos/walkman/or other electronic device utilising earphones must not be used.
- All items of site electrical plant must be 110v or battery operated, unless prior arrangement has been agreed for specialist works.
- In the event that equipment rated above 110V must be used then this must be RCD protected at source.
- All personnel for their own safety and the safety of others are required to fully comply with the Principal Contractors statement of working method and should not interfere with anybody else's works or methods.
- All vehicles must be booked in with logistics/security department prior to arrival on site and times and dates agreed.
- Site fire and emergency alarms, equipment, and instructions are designed to protect life.
- Any person found to be interfering with or misusing fencing, scaffolding, barriers, signs, fixtures, fittings or equipment provided in the interest of health, safety and welfare, will be excluded from site, and may face investigation and/or arrest.



7.0 Health & Safety File Requirements & Content

- The requirement to produce a Health & Safety File is a legal obligation by virtue of the Construction [Design & Management] Regulations.
- The CDM Regulations state that the Health & Safety File should contain 'information relating to the project which is likely to be needed during any subsequent construction work to ensure the health and safety of any person'.
- The Health & Safety File 'should form a key part of the information that the client, or the client's successor, is required to provide for future construction projects' and that it 'should contain the information needed to allow future construction work, including cleaning, maintenance, alterations, refurbishment and demolition to be carried out safely.'
- The format and content of the Health & Safety File is to be agreed with the client and Principal Designer.
- It is likely that the file is to be combined with other documentation such as record drawings, the operation and maintenance manuals, relevant sign off certificates, etc. to form a complete set of handover documentation.
- The following sections describe a possible format and content for the Health & Safety File and handover documentation.

7.1 Handover documentation format

The handover documentation will consist of 4 main parts: -

Part 1: Health & Safety File

Part 2: Documentation and certificates

Part 3: Record drawings

Part 4: Operation and maintenance manuals

7.2 Handover documentation presentation

- The number of hard and electronic copies is yet to be agreed. The principal contractor should assume that two hard copies and one electronic copy are to be provided until the actual requirements are confirmed.
- The hard copy documentation is to be contained in clearly titled and appropriately sized A4 ring binders.
- The different parts and sections of the documentation within the folders are to be clearly identified with appropriately labelled dividers. Where drawings and trade literature cannot be hole punched they are to be accommodated in punched plastic pockets.
- All electronic information is to be provided on clearly labelled CDs. The files are to be of a format commonly used in the construction industry, such as MS Word and MS Excel documents, Adobe Acrobat pdf's, and AutoCAD DWG file format.
- Adobe Acrobat pdf files must be of a suitably high quality to allow optical character recognition of text, and clear reproduction of drawings and pictures. A minimum quality of 300dpi is expected.

7.3 Production & Management

The Principal Designer will compile the documentation based on submissions from the principal contractor and project team.

7.4 Part 1: H&S File Content

The health and safety file is to be prepared and split between the following sections.

No.	Section	Responsibility
1.0	Introduction	Principal Designer
2.0	Project Directory	Principal contractor
3.0	Description of the Works	Architect
4.0	Existing Information	Principal Designer
5.0	Significant Residual Hazards	Design Team Principal Contractor Principal Designer
6.0	Hazardous Materials	Principal Contractor
7.0	Key Structural Principles	Structural Engineer
8.0	Removal or Dismantling of Installed Plant & Equipment	M&E Engineer
9.0	Provisions for Cleaning and Maintenance	Architect
10.0	Significant Services	Principal Contractor
11.0	Safe Use of the Site	Architect

Refer to Appendix 2 for guidance on what information is to be provided in each section of the H&S File and for the content of the Operation & Maintenance Manuals etc.



Appendix 1 F10

HSE			
Notification of construction project			
About the location of the site			
Address of the construction site	LONDON ROAD FIRE STATION, 50 LONDON ROAD, MANCHESTER, ENGLAND, M1 2PH		
In which local authority is the site address?	MANCHESTER		
About the project			
Description of project	Refurbishment: Refurbishment commercial		
Description of the construction work	This phase of works focuses on the restoration of the external and internal building fabric to the grade two star listed London Road Fire Station. The works consist of scaffolding and temporary enabling works including structural propping and reinforcements, lintel replacements and material sampling and investigation, masonry and metal cleaning and repairs, window, door and rainwater goods replacement, waterproofing repairs to the roof areas, chimney saddles and towers, timber repairs, repairs to the internal cantilever balconies and the installation of steel frames and other associated works to ensure the structure is fit for the future construction phases.		
No of people on site	75		
No of contractors on site	12		
Start Date	03/09/2018		
Time Allowed by Client (in weeks)	4		
Duration (in weeks)	82		
About those involved in the project			
Name	Allied London	Role	Client
Email	grant.jarvie@alliedlondon.com	Tel. Number	020 7255 7829
Address	HQ BUILDING, 2 ATHERTON STREET, MANCHESTER, ENGLAND, M3 3GS		

Name	Quadrige Contracts Ltd	Role	Principal Contractor
Email	simon@quadrige.co.uk	Tel. Number	07976 950 415
Address	Gadbrook House, 7-9 School Road, Rudheath, NORTHWICH, ENGLAND, CW9 7RG		
Name	Chapman BOSP	Role	Designer
Email	kevin.mckee@chapmanbdsp.com	Tel. Number	020 7618 4800
Address	Saffron House, 6-10 Kirkby Street, LONDON, ENGLAND, EC1N 8TS		
Name	Curtins	Role	Designer
Email	kev.mitchell@curtins.com	Tel. Number	0161 236 2394
Address	MERCHANT EXCHANGE, 17-19 WHITWORTH STREET WEST, MANCHESTER, ENGLAND, M1 5WG		
Name	Levitt Bernstein	Role	Designer
Email	gillian.harrison@levittbernstein.co.uk	Tel. Number	0161 669 8740
Address	Bonded Warehouse, 18 Lower Byrom Street, MANCHESTER, ENGLAND, M3 4AP		

Declaration details

Name	James Bucknall
Declaration	I have been asked by the client to notify on their behalf, and they have confirmed they are aware of their duties
Date	28/11/2019
Confirmation Email	jeb@orsa.uk

Client Signature (Can be used for your own records, ONLY if required)

Declaration (as stated above)

Name:

Declaration Signature:

Date:



Appendix 2 Health & Safety File and O&M Requirements etc.

1.0 Introduction

- Identify the purpose of the H&S file
- Identify file holder's responsibilities
- Identifies how the file is to be updated following future notifiable and non-notifiable works

2.0 Project Directory

Identify the names, responsibilities, and contact details of the project team and sub-contractors.

3.0 Description of the Works

Provide the following details, as applicable

- General overview of the project
- Extent of the works, i.e. areas of the location affected by the project
- Brief description of each works package carried out including reference to all systems or equipment affected.
- For refurbishment/alteration works a description of the influence of project works on existing structure, plant and service installations.
- A scheme drawing, if this would be helpful to indicate nature and extent of work carried out.

4.0 Existing Information

Provide details of any documents/reports that were developed prior to the construction works which are still relevant to the completed structure, e.g. ground investigation reports

5.0 Significant Residual Hazards

Include details of significant residual hazards [i.e. hazards that are unusual, that will not be obvious to a competent contractor or that are likely to be difficult to manage in practice, e.g. asbestos, contaminated land, water bearing strata, buried services, lack of edge protection, fragile surfaces, etc.] associated with the maintenance, cleaning, alteration, dismantling or demolition of the structure and how they are to be managed.

Include the following details for each hazard, as appropriate:

- What the hazard is and how it might cause harm to persons such as contractors, building occupants, or the public.
- The areas affected by the hazard.
- Any critical assumptions and outline the controls that must be followed to ensure safe working [e.g. 'Equipment to be isolated before opening inspection cover', 'Permit required to work in plantroom' or 'Respiratory protection PPE to be worn']
- Cross-references, where applicable, to further details [e.g. on safe working included in a manual] and drawings showing details [e.g. safe access or location of services].

6.0 Hazardous Materials

Include details ONLY of those materials/products/substances that present a hazard when subsequently encountered during maintenance, alteration, dismantling or demolition and NOT all materials used during the construction [i.e. only those materials that pose a residual hazard, e.g. Gaskets, Lubricants, Glues, Cleaning Agents, Lead Paint or Special coatings that should not be burnt off].

Details must be provided for each material, as outlined above for residual hazards. Include supplier's Safety Data Sheet information for ALL materials / substances listed [COSHH assessments are NOT required]. Also include the most recent asbestos survey report and

any subsequent clearance certificates, noting the location of any remaining asbestos.

7.0 Key Structural Principles

Provide details of key structural principles incorporated in the design of the structure [e.g. load bearing walls, bracing, cantilevered slabs, substantial sources of stored energy such as pre- or post-tensioned members] and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there.

- Identify any spare capacities, i.e. where capacities are not currently fully used and greater loadings can therefore be accommodated.
- Always include information on the following where appropriate.
- Alterations that have changed the stability criteria of the structure.
- The location of post-tensioned members and their distressing points.
- Unusual stability concepts and necessary temporary works / bracing required for demolition.

8.0 Removal or Dismantling of Installed Plant & Equipment

Provide information regarding the safe removal or dismantling of installed plant and equipment [e.g. any special arrangements for lifting and hard standing for cranes, specific order of dismantling, modular construction, access/knockout panels to allow movement of plant, route for transporting plant through the building, etc.].

Include the weight of any particular heavy plant items.

9.0 Provisions for Cleaning and Maintenance

Provide health and safety information about equipment provided for cleaning or maintaining the structure.

Describe in general terms provisions for the safe cleaning and maintenance of all parts of the structure, such as the following:

- Provision for safe access and egress
- Provision for emergency escape
- Provision for safe working space/platform
- Provision for a safe working environment, e.g. adequate task lighting, limitation of noise and vibration levels and ventilation to give acceptable temperature & humidity levels
- Provision of specific equipment, such as lifting or access equipment
- Specific controls, such as a permit to work

It is NOT acceptable to make a general cross reference to maintenance manuals for this section unless the specific information required can be readily found by reference to the manual.

10.0 Significant Services

Provide details of the nature, location and markings of significant services, including underground cables, gas supply equipment, fire-fighting services, etc.

11.0 Safe Use of the Site

Provide information and record drawings of the structure, its plant and equipment [e.g. the means of safe access to and from service voids, fire doors and compartmentalisation, etc.].

Part 2: Documentation & Certificates Content

Include any relevant documentation and certificates that are not included in the Part 4: Operation and Maintenance Manuals, e.g.:-

- Certificates of practical completion and defects list



- Planning permission and correspondence relating to the discharge of conditions
- Listed Buildings and Ancient Monuments consent
- Building regulations form of compliance
- BREEAM certificate and report
- Building Log Book
- Asset Register
- Petroleum Act certificate
- Water chlorination certificate
- Key schedule
- CCTV Drain survey

Part 3: Record Drawings Content

Provide a schedule of all-architectural, structural and mechanical and electrical record drawings provided in this section and the Part 4: Operation & Maintenance Manuals.

Include copies of any architectural, structural and mechanical and electrical record drawings that are not included in the Part 4: Operation & Maintenance Manuals.



Appendix 3 Risk Register

Risk are assessed on a 5 X 3 matrix of likelihood and potential consequence, providing a measure of risk.

Attention should be given to the risk register re-assessment of the work scenarios, any scenario with the probability of fatality must be mitigated using the hierarchy of controls to ensure risk is aLaRP [as Low as Reasonably Practicable].

Only those hazards that are not likely to be obvious to a competent contractor, that are unusual or that are likely to be difficult to manage effectively are included.

Designers [including principal contractor when appointed in design and build capacity, and any trade contractor in design supplement works] are to ensure that any design changes, which may affect health and safety, are immediately notified to the Principal Designer and that any associated hazard identification or risk assessments are provided or updated.

This information will be reviewed during periodic meetings at which CDM matters are to be addressed; including application of hierarchy of risk principals so that design proposals can be assessed throughout the design process to consider elements such as:

- How the design can be built and erected safely?
- Where work at height cannot be avoided, design in edge protection or other features that expedite safe access and erection and/or anchorage points, etc. for nets or harnesses; and early installation of permanent access.
- Using the hierarchy of risk control on using collective protection over individual protection, as last resort.
- Designing to simplify safe construction.
- Designing to minimise health risks.
- Designing to simplify future maintenance and cleaning work.
- Demolition hazards for inclusion in the health and safety file.
- Existing live building services – isolation electrical permits.
- Temporary Works - Scaffolding to be designed and checked with adequate loading for carrying materials and personnel by independent competent person. Together with adequate protection of the public.
- Noise - To control at source within specified times and short durations. Noise levels be monitored and ear protection worn where required.
- Electricity - Isolations and connections to be only carried out by competent electricians to 17th IEE Edition using a permit to work system.

5x3 Qualitative Risk Assessment

Likelihood	Consequence		
	1- Minor	2- Medium	3- Serious
A- Certain	Moderate	High	Critical
B- Likely	Low	High	High
C- Possible	Low	Moderate	High
D- Unlikely	Low	Low	Moderate
E- Rare	Low	Low	Low

Consequence	×	Likelihood	=	Risk
The impact of an event. It can be a loss, harm, a disadvantage or a gain.		A qualitative description of probability or frequency.		An uncertain event or condition that, if it occurs, will affect the achievement of one or more of your objectives.

Risk Management

Risks that significantly exceed the risk acceptance threshold and need urgent and immediate attention.	Critical
Risks that exceed the risk acceptance threshold and require proactive management. Includes risks for which proactive actions have been taken, but further risk reduction is impracticable. However active monitoring is required for the latter.	High
Risks that lie on the risk acceptance threshold and require active monitoring. The implementation of additional measures could be used to reduce the risk further.	Moderate
Risks that are below the risk acceptance threshold and do not require active management. Certain risks could require additional monitoring.	Low

Likelihood

Likelihood	Likelihood description	Frequency
Almost Certain	Recurring event during the life-time of an operation / project	Occurs more than twice per year
Likely	Event that may occur frequently during the life-time of an operation / project	Typically occurs once or twice per year
Possible	Event that may occur during the life-time of an operation / project	Typically occurs in 1-10 years
Unlikely	Event that is unlikely to occur during the life-time of an operation / project	Typically occurs in 10-100 years
Rare	Event that is very unlikely to occur very during the life-time of an operation / project	Greater than 100 year event

1591_London Road Fire Station Project CDM & H&S Risk Register

Issue Date 21 January 2020

Issue 04

Document Reference 1591_Risk Register @ 210120

This risk register does not include items or matters that would be known to a competent contractor. The risk status column identifies risks as:

[1] **Open** – Designers are still developing the design to eliminate/mitigate the risk.

[2] **Closed** – Risk has been eliminated and no further action is required.

[3] **Closed Residual Construction Hazard** – the designers have done as much as they can to mitigate the risk, however there still remains a construction risk for trade contractors.

[4] **Closed Residual Hazards for the H&S File** – there still remains a risk post completion that the building management team/future contractors need to be made aware of.

LIKELIHOOD	CONSEQUENCE		
	1- Minor	2- Medium	3- Serious
A- Almost Certain	Moderate	High	Critical
B- Likely	Low	High	High
C- Possible	Low	Moderate	High
D- Unlikely	Low	Low	Moderate
E- Rare	Low	Low	Low

No.	Works Element/Package	Hazard	Consequence	Likelihood	Initial Risk Level	Design Control Measures	Contractor Control Measures	Consequence	Likelihood	Risk Re-Evaluation	Risk Owner	Applies to	Risk Status
1	Enabling	Removal of Asbestos from ceiling voids and other structures Boiler room etc.	3 Serious	B-Likely	High	Ensure a detailed survey is undertaken and all findings passed to the contractor.	Follow all survey recommendations. Employ a licensed Asbestos removal company to under take all removal works. If further suspicious materials are found stop work, isolate the area and report to the project management team. Ensure all records of air sampling, certificates of re-occupation and waste notes are retained for the H&S file.	3 Serious	D -Unlikely	Moderate	Principle Contractor / Designers	Const.	[3] Closed
2	Enabling	Risk of injury from structural dilapidation of buildings from water ingress- Drill tower, Drying tower other high risk areas.	3 Serious	B-Likely	High	Structural surveys and reports on dilapidation with mark ups. Review of safe works sequences, and TW designs for propping and structural support. Scaffolding and Temporary structures to access safely at height	TW procedures and TW appointments. Structural Engineer surveys and inspections for design approval and monitoring of structures for movement and impact, pull testing and scaffolding installations to facilitate stability. Propping and formwork to secure structures at risk. Exclusion zones restricted access to site areas. Suitable RAMS developed for access.	3 Serious	D -Unlikely	Moderate	Principle Contractor / Designers	Const.	[1] Open
3	Enabling	Breathing or ingesting lead dust/fumes- exposure to lead containing materials	3 Serious	B-Likely	High	RAMS designed to ensure method does not expose lead to workers exclude blow lamp torching and dry sanding	Suitable RAMS developed to minimize lead exposure, use of wet abrasive paper and on-tool extraction, FFP3 RPE overalls and suitable PPE, wet cloth extraction and washing of hands prior to eating. suitable waste removal. Employee Awareness TBTs.	3 Serious	D -Unlikely	Moderate	Principle Contractor / Designers	Const.	[1] Open
4	Enabling	Collapse submerged Relic structures tunnel/ unknown structures	3 Serious	B-Likely	High	Surveys and structural inspection. Temporary propping and support. Heritage assets reviewed with MCC heritage and necessary LBC consents agreed for future re-purposing or infill for removal of future risk of collapse.	Structural Engineer surveys and inspections for design approval and monitoring of structures for movement and impact. Infilling of voids where necessary	3 Serious	D -Unlikely	Moderate	Principle Contractor / Designers	Const.	[1] Open
5	Enabling	Weils Disease- airborne bacterium infection	3 Serious	B-Likely	High		Monitoring and sampling of deleterious materials and provision of controls to reduce exposure. Pest and vermin controls in high risk areas and isolation of water and draining of static dead ends and the like.	3 Serious	D -Unlikely	Moderate	Principle Contractor / Designers	Const.	[3] Closed
6	Enabling	Anthrax spores from existing building fabric plaster and lath	3 Serious	B-Likely	High	Heritage surveys and assessment. Intrusive sampling assessments for high risk areas identified in existing fabric, plasters and lathe materials.	Commission sampling of suspected mohair/horsehair containing materials and diversify sampling to mitigate summary risk. Ensure records are maintained for the H&S file.	3 Serious	D -Unlikely	Low	Principle Contractor / Designers	Const.	[3] Closed
7	Enabling	Legionnaires disease static water in existing water system.	3 Serious	B-Likely	High	Review existing building services and locations for risk mitigation	Locate and review water supply and service on site and drain existing areas where static water and bacterium are a risk, water testing etc to facilitate. Provision of Temporary welfare facilities with safe water supply.	3 Serious	D -Unlikely	Moderate	Principle Contractor / Designers	Const.	[3] Closed

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[1] **Open** – Designers are still developing the design to eliminate/mitigate the risk.

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8	Constuction	Slips/Trips	3 Serious	B-Likely	High	Strategic Planning for sequence of works and access arrangements considers slips trips, Temporary works facilitate ease of access to work areas.	Induction and CPP, site rules and inspections to manage cables at height and remove slip trips, marking of cables or signage PPE for all operatives.	3 Serious	D -Unlikely	Moderate	Principle Contractor / Designers	Const.	[3] Closed
9	Construction	Fall through voids	3 Serious	B-Likely	High	Review of enabling work requirements and management of access into high risk areas of the building, zonal management and use of visual management and exclusion zones.	Voids suitably protected or excluded, marked up if required with pain or tape if unavoidable, TW captures voids and fall protection- collective strategy over individual protection.	3 Serious	D -Unlikely	Moderate	Principle Contractor / Designers	Const.	[3] Closed
10	Construction	Hit by falling debris	3 Serious	B-Likely	High	Dilapidation surveys, structural surveys and remedial Temporary Works for support and propping of high risk existing structures and exclusion zones, restricted access.	Site induction, Hard hats and fire point PPE mandatory. Exclusion zones and restricted access with permit controls as required. Temporary Works provides collective protection debris netting etc as required.	3 Serious	D -Unlikely	Moderate	Principle Contractor / Designers	Const.	[3] Closed
11	Enabling	Electric shock	3 Serious	B-Likely	High		Temporary Powers supply with required safe voltage 110v. Electrical work carried out by suitably trained electrician and IEC commissioning certificated where required. Existing electrical infrastructure to be tested tracked and isolated in areas where electric supply is unknown	3 Serious	D -Unlikely	Moderate	Principle Contractor	Const.	[3] Closed
12	Construction	Blind Spots in Vehicular Access - in the loading area present the risk of blind spots to pose a collision hazard for people, cyclists and vehicles.	2 Medium	B-Likely	High		Develop and implement a traffic management plan. Consider scheduling deliveries etc. outside peak public traffic hours. Works to be phased to ensure at-grade crossing facilities are continually provided around the site to assist pedestrians.	2 Medium	D -Unlikely	Moderate	Principal Contractor	Const.	[3] Closed
13	Construction	Contact with asbestos and other hazardous substances in existing structure	3 Serious	C - Possible	High	Full surveys has been completed	Follow survey recommendations, If any further hazardous substance is found stop work and report to Project Management team.	2 Medium	E-Rare	Low	Principal Contractor	Const.	[3] Closed
14	Construction	Edge Protection	3 Serious	C - Possible	High		Plan work with a sequence that allows for edge protection to be in place in advance of other works.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[3] Closed
15	Construction	Inhalation of dust created from possible cutting & breaking on site- dust creating activities.	3 Serious	C - Possible	High		All cutting equipment to be fitted with dust wetting or dust extraction equipment dependent on material being cut. Where possible pre measured materials will reduce the need to create dust as a result of cutting, grinding, sanding, chasing etc. Suitable RPE and dust ssupression regimes.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[3] Closed

1591_London Road Fire Station Project CDM & H&S Risk Register

Issue Date 21 January 2020

Issue 04

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16	Construction	Inhalation of toxic fumes	2 Medium	B-Likely	High	Can use of certain substances harmful to health be avoided or applied off site?	Avoid using highly toxic solvents during the construction period. Undertake COSHH assessments to assess the toxicity of solvents to be used and seek alternatives that are less harmful. Where this cannot be achieved seek off site application. Where this cannot be achieved seek usage in fresh air. Avoid enclosed spaces. PPE to be utilized following information from COSHH data sheet and	2 Medium	C - Possible	Moderate	Principle Contractor / Designers	Const.	[3] Closed
17	Construction	Noise and disturbance to users and occupiers of neighboring buildings.	2 Medium	B-Likely	High		Follow planning restrictions if applicable, consult with neighbors, plane work and notify neighbors if required	2 Medium	C - Possible	Moderate	Principal Contractor	Const.	[3] Closed
18	Construction	Paints / sealers that generate hazardous vapor & fumes. Risk of health hazards	2 Medium	B-Likely	High	Use low odour or water based systems where possible. Specifications to consider the location to be treated with regards to ventilation.	Follow COSHH guidance	2 Medium	C - Possible	Moderate	Principle Contractor / Designers	Const.	[3] Closed
19	Construction	Trailing Leads – Slips/Trips/Falls	2 Medium	B-Likely	High		Contractor to encourage the use of battery operated tools as a primary measure and if possible sufficient charging points should be supplied. Where this cannot be achieved the contractor must look to incorporate plug in points in relevant locations around the works. All cables should be elevated off the ground to reduce trailing leads across floors.	2 Medium	D -Unlikely	Low	Principal Contractor	Const.	[3] Closed
20	Construction	Dust creation	2 Medium	C-Possible	High		Adopt appropriate controls to minimize the amount of dust created and contain dust at source, e.g. use chop saws with integrated vacuum systems, use damping down methods where possible, skill sways use exhaust systems and enclosures oo contain dust. Suitable RPE and face fit testing to be implemented.	2 Medium	D -Unlikely	Low	Principal Contractor	Const.	[3] Closed
21	Construction	Collapse of hoarding	2 Medium	D - Unlikely	Low	Hoarding Design for Temporary Works considered.	All hoarding should be designed by a competent hoarding designer taking into account ground conditions and wind/impact resistance. Hoarding is to be included on the temporary works register.	2 Medium	D -Unlikely	Low	Principal Contractor	Const.	[3] Closed
22	Construction	Collapse of Scaffolding	3 Serious	C - Possible	High	TW designs approved by TW Coordinator and Supervisor. Statutory checks.	Scaffold to be designed in accordance with TG20 and included on the temporary works register. Principal Contractor to ensure robust Temporary Works Process in place to ensure safe working access and support of building in temporary state.	3 Serious	C - Possible	Low	Principal Contractor	Const.	[1] Open

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23	Construction	Manual Handling	3 Serious	C - Possible	High	Design alternatives for handling or avoidance through mechanization	Where materials or parts have not been broken down into manageable sections the contractor must consider mechanical aids to reduce manual handling. This will be achieved by assessing the risk via manual handling assessment. As a final resort the contractor must look to manage the weight of the load by way of deploying more operatives to spread the weight. This must be seen as the last resort.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[3] Closed
24	Construction	Protection of public and building occupants during deliveries	2 Medium	C - Possible	High	Design of Traffic Management Plan	Traffic plan to be developed, consider deliveries to be scheduled outside of peak times	2 Medium	D -Unlikely	Low	Principal Contractor	Const.	[3] Closed
25	Construction	Fire – Hot Works	3 Serious	C - Possible	High	Design uses compression plumbing or precast elements to reduce cutting and associated fire risk where possible.	All hot works should be avoided where possible however in practical terms hot works are likely to be required. Where this is the case only measures to control the hot works will minimize the risk of a fire. Hot works permits must be undertaken with the relevant procedure followed as identified in the permit.	2 Medium	D -Unlikely	Low	Principal Contractor	Const.	[3] Closed
26	Construction	Unauthorized access into site	2 Medium	B-Likely	High	Design of TW hoarding to prevent access, and Management of Public Realm interfaces	Security must be in place to prevent unauthorized access, PC to ensure restriction to site - turnstil and Msite access, CSCS trained operatives as a minimum, manned gate entrance to ensure vistors and puplic are restricted and controlled.	2 Medium	D -Unlikely	Low	Principal Contractor	Const.	[3] Closed
27	Construction	Exposure to noise	2 Medium	B-Likely	High	Design methods where noise reduction can be optimized	Where possible work processes should be considered to reduce the use of tools that create excessive noise. Can an alternative tool be used that does not generate as much noise, consider remote equipment. Where this cannot be achieved then PPE should be seen as a last resort. Hearing protection zones should be created along with noise registers and noise monitoring equipment to monitor the levels of noise created. Signage should be placed to warn others noisy operations. The site daily hazards board should identify noisy work areas where hearing protection is needed.	2 Medium	C - Possible	Moderate	Principal Contractor	Const.	[3] Closed
28	Construction	Eye Injuries as a result of cutting/grinding/pressure washing – high velocity debris	3 Serious	C - Possible	High		Any work where high velocity debris or sparks are created as result of the work should be avoided where possible. In event that this cannot be avoided high impact resistant safety glasses/goggles that comply with British Standards	3 Serious	C - Possible	Moderate	Principal Contractor	Const.	[3] Closed

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29	Construction	Diseases associated with exposure to excessive vibrating tools. 'White finger'	3 Serious	C - Possible	High		Where possible use remote mechanical means i.e. Brokk type machine. Avoid use of vibrating tools where possible. Where vibrating tools are used then simple precautions such as using appropriate PPE (gloves), health surveillance, HAVS register etc. will reduce effects of long term exposure to vibrating tools.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[3] Closed
30	Construction	Blocked fire escape routes during construction	3 Serious	C - Possible	High	Identify at an early stage – areas where the contractor can store materials out of the way to prevent any materials stored on exit routes and agree how to maintain existing escape routes for building occupants.	All fire escape routes must be kept clear at all times. Materials should not be stored along fire exit routes. Fire exit routes should be demarcated by a temp floor colour to demarcate the route as keep clear route. All operatives are to be briefed on the importance of this at induction. Where a fire escape route need to be blocked due to an element of work then a permit to block fire escape route can be utilized which will identify alternative fire escape routes during the works. Escape signage throughout the works is o be maintained along with marked up fire plans and simple procedures.	3 Serious	C - Possible	Moderate	Principal Contractor / Designers	Const.	[3] Closed
31	Construction	Use of chemicals paints/sealants which have Occupational hazards	3 Serious	C - Possible	High	Use of finishes that design for low odour and non toxic products to minimise exposure and occupational health risks.	Use modern safer type chemicals, ensure a COSHH risk assessment is carried out and all recommendation for use, storage, disposal PPE and emergency procedures are known and followed.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[3] Closed
32	Logistics	Access for emergency vehicles and services and out of hours working	3 Serious	D - Unlikely	High		Site Logistics strategy needs to take in to consideration. Needs to be maintained at all times.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[3] Closed
33	Services	Working with LIVE services	3 Serious	C - Possible	High		All existing services drawings are to be obtained to ascertain all LIVE services. Work to LIVE services should be avoided. A permit to work system is to be introduced.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[3] Closed
34	Existing hazards	Striking unidentified services	3 Serious	C - Possible	High	Identify all services on site and highlight any areas of doubt or concern	Confirm the presence of live services on site. Develop suitable procedures for working in the vicinity of live services.	3 Serious	D -Unlikely	Moderate	Engineer	Const.	[3] Closed
35	Geotechnical	Relic heritage structures	3 Serious	C - Possible	High	Design for trial surveys and archeological survey digging/valuation trenching through MAAS and Salford Archeology.	During any bulk excavation phasing Confirm if presence of any heritage relic structures such as earlier housing remains through suitable trial pits and surveillance/surveys, liaison with Manchester Archeology Advisory Service and Salford Archeology	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[1] Open
36	Environmental	Land contamination from previous use	3 Serious	C - Possible	High	New Scope of design for the proposed scheme has taken out the excavated baesment in the courtyard which will reduce the risk of contamination disruption form reduded dig and excavation procedures.	Ensure suitable Consultant surveys for land contamination and sampling to verify type of contaminants, procedures for suitable waste removal and neutralising of contaminants	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[1] Open

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37	Environmental	Risk of Flooding	2 Medium	C - Possible	Moderate	Design for suitable drainage and surface water run-off and attenuation as required. Ensure discharge consents meet with consented plans	The site is within Flood Zone 1, risk of flooding from rivers and the sea is low proposed surface water run-off from the internal roofs along with rainfall falling directly onto the courtyard would be directed into/onto a newly constructed permeable paved internal courtyard covering. Out falling surface water would continue to discharge into the public water sewer but at a restricted rate, where suitable provision for the existing site	2 Medium	D -Unlikely	Low	Design Team	Const.	[1] Open
38	Geotechnical	UXO Risk	2 Medium	C - Possible	Moderate	Design and consented scheme considers any substructure works and associated design risk, new excavated courtyard basement is in abeyance.	Suitable provision for UXO risks to the site which die to its previous use would have been a targeted area, ground surveys, sample doreholes, slit trenching, excavation methods, vacuum excavation etc to be considered, any significant reduced dig or bulk excavation required further UXO survey and assessment.	2 Medium	D -Unlikely	Low	Design Team	Const.	[3] Closed
38	Ecological	Impact on protect species/biodiversity	3 Serious	C - Possible	Moderate	Pre Ecological impact and biodiversity surveys - established no evidence of protected species habitation but a risk of nesting birds.	Ecological impact surveys and monitoring of existing structures for nesting birds or evidence of protected species. The building does have the potential to support other more common bird species such as gulls nesting, suitable provisions prior and during works are required to prevent nesting.	2 Medium	D -Unlikely	Low	Design Team	Const.	[3] Closed
39	All operations	Injury to the public	3 Serious	C - Possible	High	Design considers minimal impact on public interfaces in the public realm and during visits and events and works undertaken during minimal occupancy levels to the building to reduce risks.	Access to site restricted to construction workers only. Where required provide adequate hoarding that is designed and constructed in accordance with the relevant codes and practices. Ensure access is controlled and public interfaces are managed with regular updates and communication on work activity and risks. All deliveries will be received via main courtyard entrance via London Road . All materials will be unloaded into the designated storage areas	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const	[3] Closed
40	Existing hazards	Exposure to lead	2 Medium	D - Unlikely	High	Lead products may be found in the existing water systems, or existing building materials including painted finishes. The presence and uncontrolled exposure of Lead products poses significant Health risks which must be appropriately managed and controlled. Design methodology ensures Lead paint will not be removed by abrasive means and all work will be carried out in accordance to Control of Lead at Work Regulations 2002 (CLAW).	Principal Contractor ensures non abrasive methods for removal of existing paints or finishes where lead is suspected. OH testing and surveillance for blood levels where exposure to lead via works with flashing etc are a risk.	2 Medium	E - Rare	Low	Principal Contractor / Designers	Const	[3] Closed

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41	Construction	Skin conditions/dermatitis/ burns	2 Medium	B-Likely	High	Design utilises precast element removing in situ concrete elements or other risks.	Ensure gloves are worn for all activities or works with concrete or chemicals that sensitise the skin.	2 Medium	C - Possible	Moderate	Principal Contractor	Const	[3] Closed
42	Construction	Dermatitis, via inhalation, digestion, absorption of contaminants	2 Medium	D - Unlikely	High	Design considers use of non toxic chemicals and methods which eliminate or reduce the risk of occupational hazards from exposure to chemicals, fumes and contaminants as far as practicable.	Ensure good hygiene is maintained and welfare facilities provided. Protective PPE to prevent occupational risk i.e. contact with fuel chemicals, fumes. Wear gloves when refueling/mixing 2- stroke or cleaning machine. Wash any fuel/oil/grease or other material from skin/eyes with clean water. Do not run machines indoors or in enclosed spaces. Ensure machine is in good condition and that regular maintenance is carried out. Exhaust and extraction strategies provided where necessary.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const	[3] Closed
43	Construction	Crush injuries/trapped fingers/Sprains	3 Serious	C - Possible	High		Ensure all site workers receive induction and follow site rules. Ensure PPE including Protective gloves, Safety shoes and specialist PPE is used where required. RAMS in place for high risk activity, training and awareness of risks in place and suitable controls.	2 Medium	C - Possible	Moderate	Principal Contractor	Const	[3] Closed
45	Fire	Risk of Arson	3 Serious	C - Possible	High		Ensure public access is forbidden to the site, access is restricted at all times and all windows and doors are locked, procedures to protect against arson ongoing during construction including removal of combustibles, leaving chemicals, flammables on show etc. Checks by security to perimeter interfaces and public realm across all sides	2 Medium	D -Unlikely	Moderate	Principal Contractor	Const	[3] Closed
46	Fire	Management of fire post construction	3 Serious	C - Possible	High	Full design of fire detection and suppression to be detailed and reviewed with project Fire consultants. All designs to be reviewed by 3rd party fire engineer and local fire brigade, GMFB	Ensure testing and commissioning of Fire design elements in line with statutory requirements and suitable FMS strategy is in place post construction.	3 Serious	D -Unlikely	Moderate	Client/Fire Consultant	Design / O&M	[1] Open
47	Construction	Works at height-risk of falling	2 Medium	B-Likely	High		Particular risk of works at height and falls when working in or around the open shafts requires suitable access restriction, and protections with specific risk assessment and ongoing controls. Use of MEWPs where required MEWPs will have inspection certificates and daily checks recorded and held in the site file. All operatives using high level access equipment will wear harnesses, hard hat, Hi vis, and safety boots. A rescue plan will be attached to the RA/method	2 Medium	C - Possible	Moderate		Const	[3] Closed

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48	Structural	Overloading Floors structural collapse	3 Serious	C - Possible	High	Lifting of heavy steel materials or facade elements etc. to be designed to ensure risk of structural overloading is eliminated. A structural engineer has been consulted and further ground investigations will confirm floor loadings.	Lift ing plans and competent slinger/banksmen in place and installation follows Lift plan with approval by SE.	3 Serious	D -Unlikely	Moderate	Principal Contractor / Designers	Const	[1] Open
49	Structural	Errors are transposed in design, leading to an inappropriate design which will cause errors on site.	3 Serious	C - Possible	High	Carry out spot checks on surveys. Report any inconsistencies to Engineer as soon as discovered.	Regular Meetings to review drawings and changes in Design to ensure they are corrected transposed into construction.	3 Serious	D -Unlikely	Moderate	Designers	Const	[1] Open
50	Structural	Lifting of heavy items e.g. precast units, prefabricated elements, steelwork etc.	3 Serious	C - Possible	High	Consider weight, Centre of gravity of significant or unusual items & advise accordingly. Steelwork - Member weights to be noted on Structural Engineer drawings.	Specialist contrator provides detailed RAMS prior to installation, suiting lifting plans and equipment selcted and commented on.	3 Serious	D -Unlikely	Moderate	Designers	Const	[1] Open
51	Temporary Works	Collapse of structure. Falls of persons and materials. Loading. Dismantling.	3 Serious	C - Possible	High	Desing approval for TW process in place and reviewed	False work design must be carried out with suitable desing approval. Appointment of Temporary Works Coordinator and Supervisor and suitable procedures and methods for loading and dismantling	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const	[1] Open
52	Logistics	Plant, stored or moving materials overload the existing structure, causing local failure and/or collapse.	3 Serious	C - Possible	High		The sub-contractor fails to carry out the checks, to install necessary temporary works (as required and determined by them, back propping for example) or does not adhere to the approved scheme. This may lead to overstress and local failure.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Demo.	[1] Open
53	Use of lifting gear	Untrained banks men/slingers. Overloading. Incorrect angle of sling. Defective/wrong equipment. No protection to sling. Incorrect slinging method.	3 Serious	C - Possible	High		All lifting gear must have a test certificate within the last 6 months. Only competent personnel to use lifting gear who must ensure the right equipment is used and checked.	2 Medium	D -Unlikely	Low	Principal Contractor	Const	[3] Closed
54	Access	Access and Maintenance strategy to reduce risks associated with cleaning and maintenance.	3 Serious	C - Possible	High	Design devlopment includes suitable strategies for access and maintenance for cleaning, plant and glazing replacement and other tasks post construction. Consider application of design hierarchy and elimination of hazards at source.	Desing team to develop suitable strategies to ensure safe access and maintenance requirements for the buidng are in place ensuring application of Desing risk hieararchy and regulatory guidance is followed.				Designers	O&M	[1] Open
55	Fire	Fire during construction	3 Serious	B-Likely	High	Design for new elements of the development considers fire protection and Fier strategy in relation to existing building constraints. Desings apporaved and commented on by Fire Consultant and GMFS.	Develop a suitable fire strategy for the site that allows access and egress effectively from all work areas. Ensure signage and Fire Extinguishers and associated systems are suitably developed. Employ sutable wiewless fire systems throughout construction work areas and develop fire evacuation process that captures site requirements. All protective sheeting metts fire protection rating.	3 Serious	D -Unlikely	Moderate	Principal Contractor	Const.	[1] Open

ORSA

\o-rsa, or-sa\ noun. [Latin: orsorum]

1.beginning, start, undertaking 2. a little she-bear 3. a girl's name.



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