

RIDGE

PROPERTY & CONSTRUCTION CONSULTANTS



Imperial War Museum London

PRE-CONSTRUCTION INFORMATION

AGE OF TERROR EXHIBITION INSTALLATION WORKS

22nd June 2017

Prepared for

Imperial War Museums

Lambeth Road

London

SE1 6HZ

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Introduction

In compliance with the Construction (Design and Management Regulations) 2015, Ridge & Partners LLP have been appointed by Imperial War Museums as the Principal Designer for the Age of Terror Exhibition Installation Works.

In accordance with the above regulations, the Client wishes to minimise risk to all parties involved in the contract, use and maintenance of the buildings. Following the completion of the project, a Health and Safety File will be handed to the Client to keep for inspection by anybody who needs to make use of the information gained during the development of the project.

The Health and Safety Plan and File are provided for the purpose of conveying information provided by others to those who have a duty to ensure the health and safety of any person at work, any person who is carrying out work or will carry out construction work, maintenance or cleaning work in or on the structure, or any person who may be affected by such work.

Ridge and Partners LLP does not accept any responsibility for the accuracy and currency of the documentation provided by others.

Note: For construction purposes the latest issue of documentation from the designers should always be used.

ISSUE RECORD			
Version	Description	Date issued	Prepared by
1.0	PCI first issue	22/06/2017	Mark Allen

1. PROJECT INFORMATION

1.1 Project Description

Installation of exhibition in Imperial War Museum, Lambeth Rd, SE1 6HZ. A summary of the works is as follows:

- Demolition of existing exhibitions, including removal of all waste
- Fit out and decoration of all new exhibition walls and suspended ceilings
- Fit out of all power and data routes, including any new lighting tracks

The full schedule of works has already been provided to the Principal Contractor in the Tender Document.

Ridge have been appointed by Imperial War Museum London to undertake the roles of Client CDM Adviser and Principal Designer, therefore if any design work continues into the construction phase the Principal Contractor must share any relevant information for Health and Safety with the Principal Designer and other members of the project team.

1.2 Project Particulars

CLIENT

Name: Imperial War Museum London

Telephone: 0207 7416 ext.

Contacts: Debbie Dance (Exhibition Production Manager) – 5246 – ddance@iwm.org.uk

Mel Appleby (Exhibition Production Manager) – 5424 – mappleby@iwm.org.uk

Andrew Gibbs (Snr 3D Designer) – 3149 – agibbs@iwm.org.uk

Emily Tan (Exhibition & Interpretation Manager) – 5354 – etan@iwm.org.uk

Stephen Long (Snr Graphic Designer) – 5422 – slong@iwm.org.uk

Address: Imperial War Museum, Lambeth Road, London, SE1 6HZ

PRINCIPAL DESIGNER

Name: Ridge and Partners LLP

Contact: Mark Allen

Address: Harling House, 47-51 Great Suffolk Street, London SE1 0BS

Telephone: 020 7593 3400 / 07557 295717

Email: mallen@ridge.co.uk

QUANTITY SURVEYOR

Name: Greenway Associates

Contact: Jon Kirby

Address: Melrose House, 42 Dingwall Road, Croydon CR0 2NE

Telephone: 020 8633 1500

Email: jon@greenwaysws.com

PRINCIPAL CONTRACTOR

Name: TBC

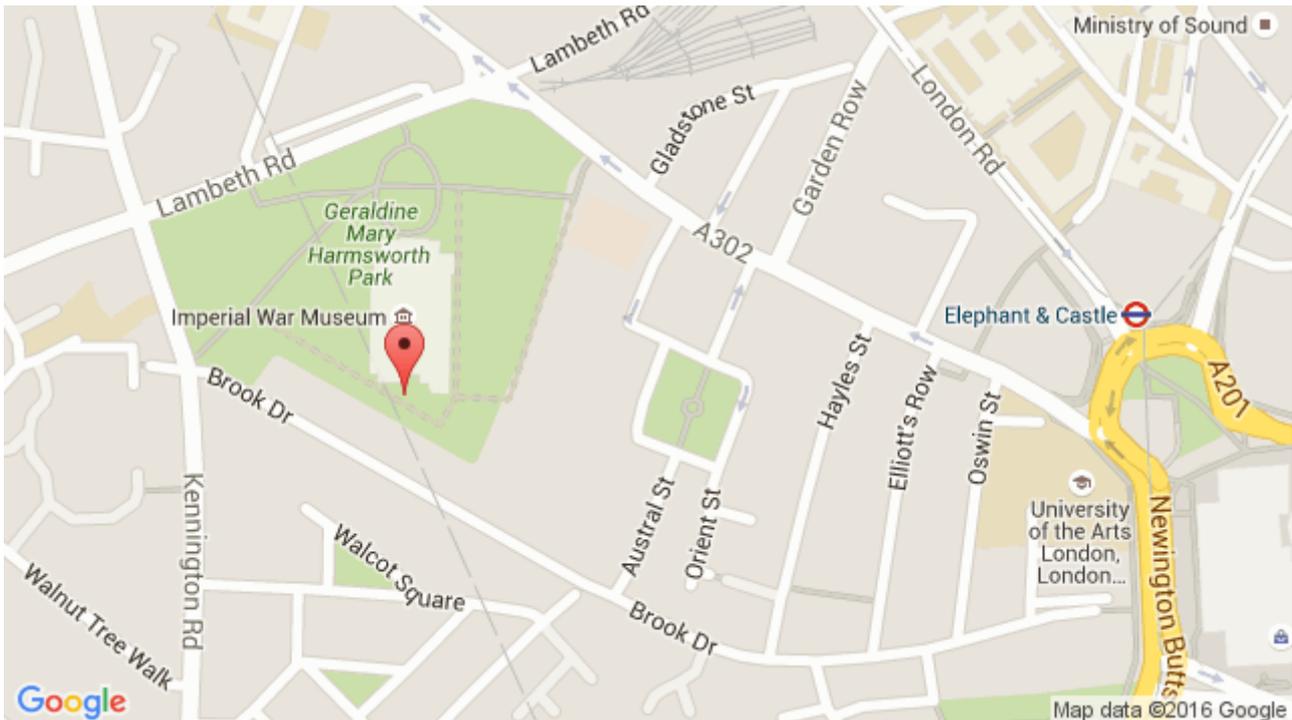
The Principal Contractor must provide the Principal Designer with full details of any additional designers associated with the construction phase.

1.3 Site Location

The site is located near to Waterloo station / Elephant and Castle. There is limited on-site contractor parking facility by prior agreement with IWM.

Nearest tube stations - Lambeth North (Bakerloo line) - Waterloo (Bakerloo, Jubilee and Northern lines) - Elephant & Castle (Bakerloo and Northern lines).

Nearest train stations - London Waterloo and Waterloo East - Elephant and Castle.



1.4 Project Programme

The anticipated key dates for the Principal Contractor to consider are as follows:-

- Tender issued: 26th June 2017
- Appointment of Principal Contractor: 14th July 2017
- Anticipated project start: 21st July 2017 (offsite construction)
- Anticipated construction works: 4th September to 12th October 2017 (3 weeks duration)

Working hours to be Monday to Friday - 0730 - 1700. Noisy works are only permitted 0800 – 1600. Weekend working will only be allowed with the prior agreement of the Imperial War Museum London. Also the contractor may only extend working hours on weekdays again subject to the Imperial War Museum London.

1.5 Extent and location of existing records and plans

The following reports and surveys are provided or planned in:

TITLE	LOCATION
Specification of works	Refer to tender pack.
Designers risk assessments	Refer to tender pack.
Designers & engineers drawings	Refer to tender pack.
IWM Instructions and Guidelines for Contractors	Refer to appendix D
IWM Asbestos Register	Available to view in FM office
Asbestos R&D Survey Dec 2016	Refer to appendix D
Asbestos Type 2 Survey 2011	Refer to appendix D
IWM Evacuation of Contractors 2017	Refer to appendix D
IWM Health and Safety Guide A-Z	Refer to appendix D
IWML Floor Plans Levels 3-5	Refer to appendix D
Previous works H&S Files	Records available on site by request

The Principal Contractor must ensure that they are in possession of adequate information prior to the commencement of works on site.

An appropriate refurbishment and demolition asbestos survey must be undertaken prior to the commencement of any intrusive construction works on site.

1.6 Regulatory Requirements

The Construction (Design and Management) Regulations 2015 and the Workplace (Health, Safety & Welfare) Regulations 1992 will apply to the proposed works.

The Works must be undertaken in compliance with Statutory Regulations, Building Regulations and IEE Regulations.

NB - any subsequent Principal Contractor design works must also be carried out in accordance with the requirements of the Building Regulations, Fire Regulatory Reform Safety Order and current legislation requirements.

2. CLIENT'S MANAGEMENT REQUIREMENTS

2.1 Management of the Construction Work

The Principal Contractor must ensure compliance with all relevant legislation, approved codes of practice and best practice. The construction phase plan should be developed in consultation with the contractors who will be affected by it, and the Principal Contractor should request any additional information required from the Client's team for the plan through the Principal Designer.

The Principal Contractor shall submit the construction phase plan and details of the welfare arrangements to the Principal Designer for review at least two weeks before the intended commencement date. A copy of the vetting sheet to be used by the Principal Designer in this respect is included in the appendix. The Principal Contractor shall not commence any work on site (including site set up) until he has received written confirmation from the client that his construction phase plan and welfare arrangements are satisfactory.

Detailed proposals for the following shall be included in the plan submitted:

- Site access plan
- Site set up method statement and risk assessments
- Design risk reduction where appropriate
- Compound arrangements
- Storage & transportation of redundant materials
- Site supervision

The Principal Contractor is expected to review and revise his construction phase plan as necessary throughout the construction period. He should note, however, the Regulations do not require such revisions to be approved by either the Client or Principal Designer; however this will be an agenda item during site visits and audits. The Principal Contractor is to ensure that the following provisions are in place:

- Produce and the **Construction Phase Health and Safety Plan** which clearly highlights the procedures for securing safety in planning, consultation with the project teams in accordance with the CDM 2015 Regulations and other relevant statutory regulations.
- **Method of Construction** – with due consideration for dust suppression, extraction, suitable plant and equipment which secures safety and take into account the site constraints. Ensure that there is adequate lighting in all working areas.
- **Lifting arrangements:** all procedures are to be in accordance with LOLER and HSE guidance / best practice. Manual handling arrangements are to take into account (TILE) and Hierarchy of control adopted to ensure that lifts are mechanised where applicable.
- **Waste management** procedures are to be highlighted with the Construction Phase Health and Safety Plan which are to include licensed removals information and Hazardous Waste Consignments as applicable.
- **Site set-up**, method statements and risk assessments.
- **Design risk reduction** – in accordance with the general Principles of Prevention (where this may be applicable).
- **Site segregation** –Principal Contractor is to clearly detail the hoarding specification, access and egress routes as well as the overall site logistics.
- **Welfare provisions** – Compliant with Schedule 2 of the CDM Regulations 2015.
- **Storage & transportation** - Traffic Management Plan / storage to be highlighted in the Construction Phase Health and Safety Plan.
- **Safety precautions** to be taken whilst fragile materials are removed from site.

- **Safe working procedures and controls** to be put in place for all high risk operations in accordance with Schedule 3 of the CDM Regulations 2015.
- **Site supervision** - Suitably qualified and experienced person(s) are to be employed to ensure that health and safety is secured throughout the works.
- **Occupied building:** Protocols for working within close proximity to the client’s staff and large numbers of visitors including children and young people.
- **Ongoing liaison** with the client to ascertain if any other contractors will be working on the buildings so that this can be coordinated.
- **Signing in system** – All operatives are to sign in prior to accessing the site areas and to undertake an agreed Site Induction.

2.2 Progress Safety Report

The Principal Contractor shall include detailed reports on site health and safety management as part of his progress reports, which shall include:

- Accident and incident rate;
- Summary of all accidents/incidents including minor and near misses that have occurred during the reporting period and actions taken to prevent a recurrence of similar incidents;
- Copies of all formal site inspection reports for the period , details of any particular actions taken in consequence of the reports, and a summary of the main findings;
- Report on any significant high risk activities planned to take place over the next reporting period and how the risks will be managed;
- Report on any significant high risk activities that took place over the last period and how the risks were controlled;
- Report on any amendments made to the construction phase plan during the period (Review schedule of risk assessments and method statements);
- Confirmation of the number of people inducted during the period;
- Confirmation of toolbox talks and other onsite training undertaken during the period;
- Details of the welfare facilities on site and associated cleaning regime;
- Confirmation of health and safety coordination meetings held in the period e.g. Meetings with the Client’s Site Representative, contractors safety coordination meetings;
- Confirmation of site security arrangements and details of any breaches of site security during the period.

2.3 Health and Safety Goals

The following health and safety goals have been set for this project. Achievement in relation to these goals will be measured as indicated and reported to the client at progress meetings.

TARGET	MEASUREMENT PROCEDURE	TIMESCALE
No lost-time accidents	Accidents/near misses to be recorded	Ongoing
All personnel to receive site induction prior to commencement of work	Principal Contractor to keep induction records available for inspection	Prior to commencement & ongoing
Weekly formal site health and safety inspections	Principal Contractor to keep records of inspections available on site and include copies with his progress reports	Weekly

TARGET	MEASUREMENT PROCEDURE	TIMESCALE
Appropriate PPE to be worn at all times	Principal Contractors regular site safety inspections Observation by Client and consultants visiting site.	Ongoing
Positive feedback from Client	Client feedback to be on agenda for progress and project review meetings	Ongoing
Noise	Fit all compressors, percussion tools and vehicles with effective silencers of a type recommended by manufactures of the compressors, tools or vehicles	Ongoing

2.4 Site Rules

- Display Statutory Notices, PI Insurance, Health & Safety at Work Act Law Poster, emergency procedures, key contact information for site manager and first aider.
- Contractor parking to be agreed and restricted to designated areas in agreement with the Client / Contract Administrator
- Expected standards of professional behaviour to be maintained at all times by all site operatives
- Use of radios / music prohibited on site
- No smoking within the site compound areas or within any areas on site
- No dropping/bombing of materials will be tolerated
- No accumulation of debris/waste materials /off cuts etc.
- Stringent housekeeping measures to be adhered to by all site operatives
- PPE to be works at all times when within site working areas and Hard Hats are to be enforced where there is the potential risk of any head injuries

IWM operate specific rules for 'Safe Working Conditions and Protection of its Staff, Visitors and Collection', referred to as Contractor Induction Guidelines 2013 as included with the tender pack.

The Client will carry out a site induction for all of the Principal Contractor's operatives on the morning of the first day of starting on Site.

2.5 Communications

Good communication is vital to ensure that the project will be well managed and minimise risks to health and safety. It is the responsibility of all Designers, Contractors and the Principal Contractor to liaise with the Principal Designer through the duration of the pre-construction phase, i.e. *any phase in which design is undertaken*. To ensure work is co-ordinated properly all duty holders must attend design and progress meetings as required in order to ensure that details of health and safety risks are shared amongst the project team.

The Principal Contractor should highlight any risk information which has not previously been recorded as soon as it becomes available / known to him. The Principal Contractor will be required to speak to the Principal Designer on a regular basis and keep him apprised of forthcoming works that may affect:

- The operations of the Client;
- Any third parties;
- The safe construction of the building;
- The safe management (i.e. cleaning and maintenance) of the final project.

In accordance with **Regulation 14** of the **CDM 2015 Regulations** the Principal Contractor must consult and engage with the workforce to ensure that measures for their health, safety and welfare are developed, promoted and checked for effectiveness. Consultation must be carried out in a timely manner.

Health and safety will be on the agenda for all progress meetings. This should include a discussion of any key up and coming health or safety risks / issues, as well as a report on achievement with respect to project health and safety targets.

Site meetings will be held on a weekly basis or as necessary for the proper management and co-ordination of the Contract and as required by the CA. The Principal Contractor is required to attend all meetings and inform subcontractors and suppliers when their presence is required. The CA will chair these meetings and will take and distribute minutes to all principal parties.

The Principal Contractor should be aware that IWM's internal staff will be undertaking aspects of the work in conjunction with, and separately to the main works. IWM internal operations will include construction of exhibits, removal & installation of items and installation of AV & lighting etc.

2.6 Welfare Provision / First Aid

Welfare

It is understood that the Principal Contractor will be able to use existing on site facilities for welfare purposes. If this is not the case the Principal Contractor should contact the Principal Designer immediately.

The Principal Contractor is required to provide welfare facilities which meet the minimum requirements set out in Schedule 2 of the CDM Regulations 2015 and must therefore review the available provisions to ensure that the complete requirements are met throughout the works.

This duty only extends to the provision of welfare facilities for the contractor's own employees who are working on a construction site or anyone else working under their control. Facilities must be made available before any construction work starts and should be maintained until the end of the project.

First Aid

Provisions for first aid must include an adequate number of first aiders/appointed persons and first aid kits, as well as other facilities appropriate to the risks faced by those on site. First aid boxes should be strategically sited in relation to the work area and be conspicuously marked.

The person in charge of the box should ensure that it is kept properly stocked and in a clean, serviceable condition. Details of first aid provisions are to be included in the Principal Contractor's Construction Phase Plan and displayed on the site notice board.

2.7 Hoarding Requirements and any additional Security Measures

The Principal Contractor will be responsible for security of the designated work area. The Principal Contractor shall provide and maintain all necessary signage, plus any necessary additional barriers, to segregate his working area(s) from third parties. Signs 'construction works in progress' will need to be displayed.

At the end of each day the Principal Contractor shall ensure that the area of works or contractor's areas are secured as appropriate and that no building materials etc. are left in a position that would cause injury or obstructions. Any ladders used for scaffold / tower access are either removed or rendered inaccessible to third parties. The continual maintenance of site security and the building users' safety is vital throughout the Contract period.

The Principal Contractor must provide temporary fencing, hoardings, screens, vans, planked footways, guard rails, gantries and the like as may be necessary for protecting the public and others, for the proper execution of the Works and for meeting the requirements of the Local or other Authority.

The Principal Contractor is to be aware that the central area adjacent to the exhibits and main staircase will remain open to the public throughout the duration of the works. Extreme care must be taken if operatives are required to work in or pass through this area.

2.8 Site Compound and Parking Restrictions

The Principal Contractor should detail the site logistics for the compound areas / storage areas on the sites.

The site logistics should include marked up details of the extent of fencing around the sites, the proposed parking locations for contractor's vehicles, traffic management and the unobstructed routes to be maintained for Emergency Services vehicles and refuse collection.

Provide any deemed necessary temporary office, mess room and sanitary accommodation required. This can be sited at All Saints rear yard, an adjacent building to the Site.

2.9 Fire and Emergency Procedures and Means of Escape

The Principal Contractor shall liaise directly with the client with respect to their fire and emergency procedure during the course of the project

The Principal Contractor shall ensure that sufficient qualified first aiders and/or appointed persons are available at all times. All contractors, sub-contractors and visitors shall be made aware of the identity of these people. Suitable means of ensuring that first aiders and appointed persons can be readily identified include displaying their names on the site notice board and requiring them to wear suitable labels on their hard hats.

The Principal Contractor shall keep records of all accidents and near misses that occur on site, including copies of any forms sent by contractors to the HSE under RIDDOR. All major occurrences shall be notified to the Principal Designer as soon as possible, and a copy of all accidents / near miss records shall be included in the Principal Contractor's regular progress reports.

Whilst certain areas of the sites will have momentary restrictions in terms of works area segregation, this will in no way affect or interfere with fire exits / emergency routes to the fire assembly points.

2.10 Permits to Work / Authorisation Requirements

The Principal Contractor shall ensure that a permit to work system is employed at the site where necessary, and particularly in relation to:

- Hot works;
- High and low voltage electrical work;
- Confined spaces;

2.11 Smoking Restrictions

No smoking will be permitted in any site accommodation or in any area of work.

2.12 Noise Restrictions

The playing of radios will not be permitted on site at any time.

3. MANAGEMENT OF HEALTH AND SAFETY HAZARDS OF THE SITE

3.1 Site Boundaries, Access, and Restrictions on Deliveries and Storage

The Principal Contractor shall ensure that access for emergency vehicles is maintained at all times during the construction period and that during the taking of deliveries all local roads are kept clear. The Principal Contractor must ensure that all appropriate measures are taken to segregate the works from all staff and users of the building in situ that will remain in occupation throughout the duration of the works.

The Principal Contractor will be required to take into account all existing traffic restrictions or hazards inherent to the site area and develop a safe system of works to control this. Preventative measures must be taken to ensure that working areas are segregated, well signed and barriered to ensure that accidental access into working areas are eliminated.

The Principal Contractor will be required to assess the risks inherent with the area so that any risks can be avoided which should include but not limited to: weight / size restrictions (plant), access restrictions e.g. any road closures or works being carried out within close proximity to the site.

Restrictions on parking of the Contractor's and employees' vehicles: On site car park, limitations may apply to Contractor parking, although sufficient parking should be available.

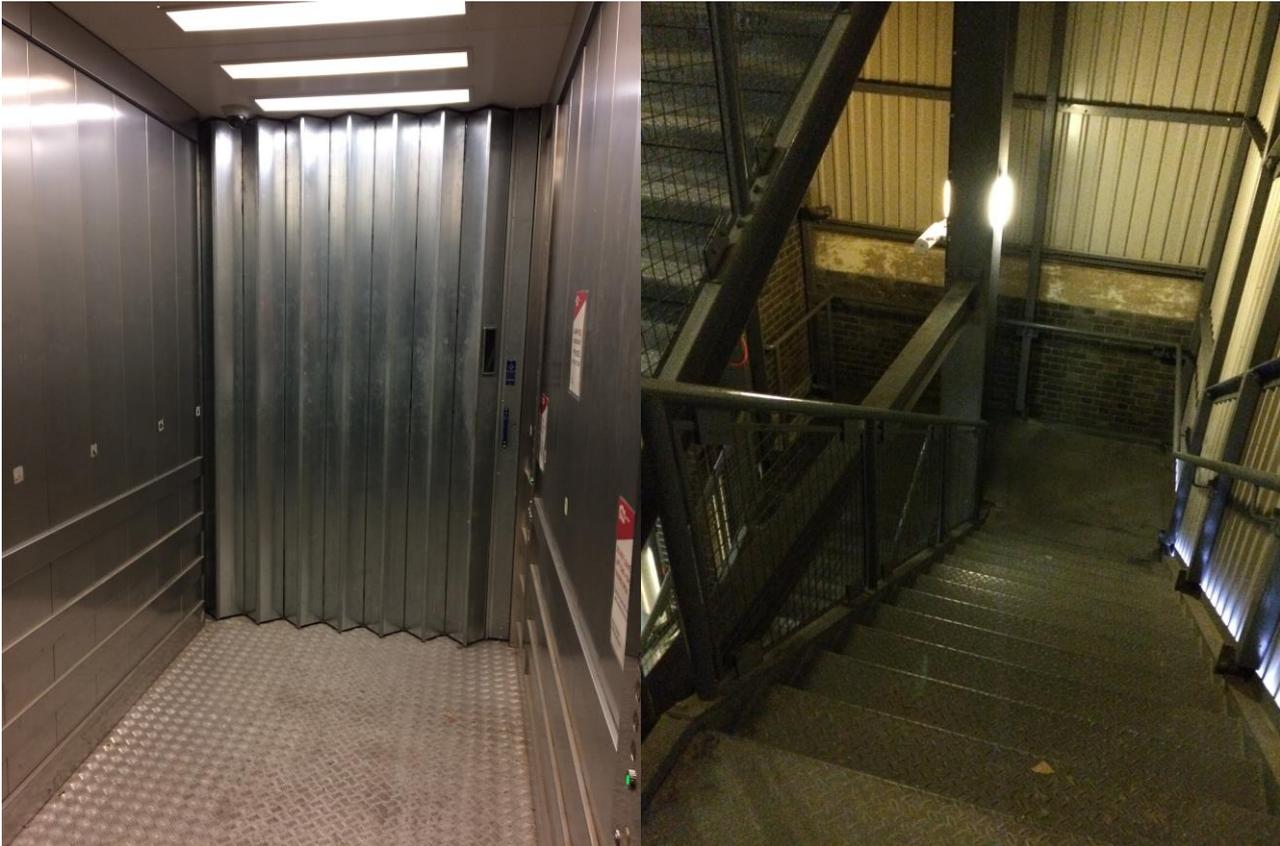
The site is accessed via the staircase to the rear of the Museum as shown below. A goods lift is available for contractor use, however close communication with IWM must be maintained to ensure disruption to usual IWM operations is minimized. The main (North) entrance to the building must not be used at any time.



(pedestrian entrance - photo taken facing west)



(access into building – photo taken facing north east)



(goods lift and staircase photos for reference only)

3.2 Transport Arrangements and Vehicle Movement Restrictions

The Principal Contractor shall submit a traffic management plan for review, which shall include details on control of delivery vehicles. The Principal Contractor shall adopt good practice in planning the site layout and consider the following:

- Reversing should be minimised wherever possible and bankspersons to be in attendance
- Parking should be made available away from lay-down areas;
- Pedestrians and vehicles should be segregated;
- A one way system should be implemented if possible.

3.3 Adjacent Land Uses

The Principal Contractor must ensure adequate arrangements are in place to prevent damage to existing buildings, fences, gates, walls, roads, paved areas, other of the site features, which are to remain in position during the execution of the Works.

The Principal Contractor shall be responsible for properly making good to the satisfaction of the CA all areas disturbed during the execution of the Works. The Principal Contractor is to plan the Works and in particular the manoeuvring of plant and machinery so as to cause minimal disturbance to adjacent areas.

Works adjacent to or in public areas shall be executed using HS(G) 151 – ‘Protecting the public, your next move’ as a guideline throughout.

3.4 Existing Service Locations

The Principal Contractor is to ensure that all live services are disconnected / isolated prior to any intrusive works e.g. If any cables have to be moved or relocated then this must be done by a suitably skilled person. Any disconnections must be subject to an isolations certificate being retained by the competent person(s) responsible for the isolation.

3.5 Existing Structures

The Principal Contractor is advised that IWM London, Lambeth Road site is a grade 2* listed building. Works must be undertaken in a manner that causes the minimum of damage/disturbance to the fabric of the building.

Many of the existing installation's walls are fixed into cladding and there are numerous partition walls that are required to be removed or extended during these works. Control measures must be implemented to reduce the likelihood of exposing asbestos at all times, especially when intrusive works into the building fabric are required.

The layout of the exhibitions will cause certain access routes to be restricted, therefore the Principal Contractor must factor this in to the safe systems of works, particularly while handling heavy / long items and materials.

3.6 Existing Plant & Equipment

The Principal Contractor's site manager is to ensure that good communication is maintained with the Client, Clients in-house facilities team and Principal Designer throughout the duration of the works.

The appointed Principal Contractor will be required to undertake suitable and sufficient site investigations to assess the access requirements as well as the location of existing plant and equipment.

3.7 Fire Precautions

The Principal Contractor shall take all necessary precautions to prevent fires from occurring and to minimise effects should there be a fire. He shall work in accordance with the HSE publication "HSG 168 Fire Safety in Construction", available via pdf download at HSE books:

<http://books.hse.gov.uk/hse/public/saleproduct.jsf?catalogueCode=9780717663453>

3.8 Works to fire alarm system

The Principal Contractor shall ensure that the requirements of the Regulatory Reform (Fire Safety) Order 2005 are met at all times. When works to the fire alarm system are undertaken the Principal Contractor shall ensure that the systems in other areas are not affected.

The Principal Contractor's attention is drawn to Regulation 32 (Fire detection & fire fighting) of CDM 2015 Regulations - arrangements must be made to ensure that suitable and sufficient fire detection & alarm systems are in place during the isolation/replacement of any fire alarm system.

The Principal Contractor must liaise closely with the Client & Contract Administrator during these works to ensure that the Client's existing Fire & Emergency Procedures are maintained at all times.

3.9 Existing CCTV cameras

IWM operates a number of CCTV cameras across the Museum which are monitored by their security team, a number are installed within the work area. The Principal Contractor must ensure that during the works:

- CCTV cameras are not covered over or blocked
- Where specified by IWM that they are to remain – that they are adequately protected from damage / contact during the works
- CCTV cameras are not to be altered / isolated / removed by operatives
- Close liaison is maintained with IWM Security Team

4. HEALTH HAZARDS AND RESTRICTIONS

4.1 Asbestos

A Refurbishment and Demolition Asbestos Survey is to be commissioned prior to any intrusive / removal works. It is advised that the surveyor should be UKAS accredited and that the Refurbishment and Demolition Asbestos survey is undertaken in accordance with HSG264.

The Principal Contractor is to view the Clients asbestos register prior to the commencement of works on site. **If no asbestos identified** – The Principal Contractor should satisfy himself as to the accuracy of this information prior to commencing works.

The Principal Contractor should refer to the R&D survey undertaken in Dec 2016 (no asbestos identified) and the earlier 2011 Type 2 survey – both attached for reference in Appendix D.

The following recommendations are advised to be undertaken where applicable to the project:

- All site operatives are to be asbestos awareness trained
- Licensed removals contractor is to be used for licensed removals and waste consignment notes retained as well as 4-stage clearance where applicable (re-occupation certificate)
- The licensed asbestos contractor shall submit the ASB5 notification where applicable (14 day notification of works)
- Site management to review all intrusive elements of the project to ensure that any gaps in survey information are filled prior to demolition or intrusive works.

4.2 Existing Storage of Hazardous Materials

No existing storage of hazardous materials has been advised by the client. The Principal Contractor will be required to visit site and review all of the tender information including the health and safety file to ascertain if the above is applicable.

The Principal Contractor should ensure safe storage for any hazardous materials including methods for ensuring that any hazardous/flammable materials are stored in accordance with the manufacturer's safety data sheets and segregated to prevent unauthorised access or exposure to combustible items. Suitable and sufficient measures are to be put in place to protect against vandalism/arson.

4.3 Health Risks Arising From Client Activities

The Principal Designer has not been advised of any health risks that may arise from Client activities.

Any unforeseen eventualities during the construction phase must be brought to the attention of the Client / Principal Designer as soon as possible.

5. DESIGN AND CONSTRUCTION HAZARDS

5.1 Significant Risks Identified During Design

Contractors must take all necessary precautions to deal with normal construction risks, such as:

- Occupied adjacent buildings with restricted areas, entrances and fire exits that are to be kept clear at all times
- Working within a live museum remaining open to the public
- Site Security
- Lifting operations – use of mobile elevated work platforms
- Traffic Management, deliveries to site (in accordance with IWM's existing traffic management system)
- Removal of waste/debris materials
- Working at Height (edge protection or lack of)
- Manual handling, particularly of heavy / bulky / unwieldy / fragile items & materials
- Slips and trips
- Waste disposal;
- Noise, dust, vibration etc.
- High & low voltage electrical works
- Fumes/vapours
- Hazardous materials
- Asbestos containing materials

Note the above list is not exhaustive. Designers are required to forward designers risk assessments in circumstances where risk have been identified that may not be obvious to a competent contractor.

5.2 Ongoing Design Work and Design Changes

The principles of prevention must be applied to any ongoing design work, particularly considering:

- Construction/maintenance workers engaged directly in the hazardous activity;
- Other construction/maintenance workers who may be affected, e.g. those working below high level working;
- Other contractors and building users occupying the building whilst construction works are carried out;
- General public, including visitors.

Full details of any design risk management steps taken by the Principal Contractor should be provided to the Principal Designer. Any design changes which have an impact on health and safety, particularly those which are made on site, must be assessed by the design team, and provided to the Principal Designer for comment prior to construction work being undertaken on the change.

5.3 Preventing falls / Fragile Surfaces

The Principal Contractor is to ensure that the hierarchy of control is employed when planning and carrying out any work at height operations and that all works at height are strictly in accordance with the Work at Height Regulations 2005.

The following provisions are to be undertaken when using the following (if applicable):

Ladders

Ladder work should only be permitted for low risk, short duration works. Only aluminum, Class I, heavy duty stepladders may be used, with the exception of when electrical works are being carried out, in which case wooden or fiberglass, (minimum EN131) industrial stepladders should be used. Further information about the correct use of ladders and stepladders can be found in guidance issued by the HSE

<http://www.hse.gov.uk/pubns/indg455.pdf>

Scaffolding

If used for access, the Principal Contractor must ensure that all scaffolding is erected, altered, maintained and dismantled by competent persons in accordance with The Work at Height Regulations 2005 and TG20:13 and SG4. The Principal Contractor must ensure that risk assessments and method statements are developed and forwarded by the scaffolding contractor. A handover certificate will need to be provided to the Principal Contractor and retained on site prior to the use of the scaffold.

All scaffolding must be inspected by a competent person and the results recorded on a “scaffold inspection report form / scaff tag”. Inspections are to be carried out every seven days and thereafter:

- Any substantial addition, dismantling or other alteration.
- After any event likely to have effect the strength or stability of the scaffold e.g. inclement weather.
- A record of inspections is to be kept on site by either a scaff tag or scaffolding inspection register. The Principal Contractor is to assess the advised requirement for the following:
 - Protective fans / netting.
 - Protective sheath on vertical standards (Ground level access / egress paths).
 - Lighting in access / egress areas (if applicable).
 - Exclusion zones (if applicable).
 - Safety open shut gates.
 - Chute leading into a covered / segregated skip (or if the site does not permit this the Principal Contractor will be required to include their provisions within their Construction Phase Health and Safety Plan).
 - Lifting hoist (to be considered or an alternative method of transporting materials to the top lift / roof level forwarded).

Mobile Tower

The Principal Contractor is to ensure that where a mobile platform is required, a PASMA or equivalent trained person erects the platform. Platforms must be inspected by a competent person in accordance with the requirements of The Work at Height Regulations 2005 and the results recorded. Access to mobile towers must be internally via access traps only. Towers must not be used unless brakes are applied and the outriggers are in position, if required.

Podiums

The Principal Contractor is to ensure that podiums are not used unless assembled by a competent person in accordance with the manufacturer's instructions. When in use all wheels must be locked with barriers / gates in place and operable. Operatives must dismount any podium before moving it to a new position. Hop ups are for low level access only as determined by risk assessment.

Mobile Elevated Work Platforms (MEWPs)

The scope of works includes working at height to make good and paint the high level ceilings, to which a MEWP is historically the preferred means of access. If required, the Principal Contractor must ensure that MEWP operators have undergone a recognised operator training course (such as IPAF) for the specific type of MEWP they are using and that the expiry date for their renewal / refresher training has been checked. A suitable & sufficient risk assessment must be undertaken, hazards identified and control measures / safe system of work put in place before use.

The Principal Contractor is to ensure that all operations are undertaken in accordance with the Working at Height Regulations 2005 and that a programme of daily visual checks, regular inspections and servicing schedules is maintained as per the requirements of LOLER.

The Client has advised that a small number of 'Genie' scissor lifts are available for hire by the Principal Contractor should they be required. Due to the nature of the site and its restricted access the Client has advised that it is not practicable for contractors to supply their own MEWPs.

5.4 Cranes / mechanised lifting of heavy items

The Principal Contractor is to ensure that any cranes used are to comply with the requirements of the LOLER. All lifting appliances and gear must have certificates of test and thorough examination available on site.

5.5 Noise

The Principal Contractor is to ensure that appropriate control measures are implemented to ensure that noisy works are controlled to prevent disturbance to the building users, IWM staff, contractors and others within the vicinity of the works.

Short & long term hearing loss can be caused by frequent or infrequent exposure to loud noise within the workplace. The requirements of the Control of Noise at Work Regulations 2005 must be met at all times. The Principal Contractor shall ensure that all operations are risk assessed and measures identified to eliminate or reduce risks from exposure to noise to protect the hearing of operatives. Hearing protection must be available / provided and the mandatory use of enforced (as determined by the exposure limit / exposure action values calculated).

The HSE have produced guidance material for employers on controlling the risks of noise at work - <http://www.hse.gov.uk/pubns/indg362.pdf>

5.6 Vibration (hand-arm)

Hand-held power tools transmit vibration to the user. Regular and frequent exposure to hand-arm vibration can cause operatives to develop permanent health effects, such as hand-arm vibration syndrome (HAVS – a collective term for a range of conditions) and carpal tunnel syndrome.

The Principal Contractor is to ensure that the requirements of the Control of Vibration at Work Regulations 2005 are adhered to. Basic control measures to reduce vibration from power tools must be applied and information, training and health surveillance must be sufficiently provided.

Information about the vibration magnitude transmitted by power tools is available from the manufacturer / hiring company. Employers should use this information to calculate exposure levels, the HSE provide guidance and a calculator tool to assist with this:

<http://www.hse.gov.uk/VIBRATION/hav/vibrationcalc.htm> - Hand-vibration calculator to calculate precise vibration exposure, and;

<http://www.hse.gov.uk/VIBRATION/hav/readyreckoner.htm> - Basic guidance table for quick reference

5.7 Dust

The Principal Contractor is to ensure that where dust is generated, the requirements of the Control of Substances Hazardous to Health (COSHH) Regulations 2002 are met. An Air Quality (Dust) Risk Assessment (AQDRA) must be undertaken to cover all of the physical activities that will occur on site during these works, and where required an Air Quality (Dust) Management Plan (AQDMP) implemented. Specific control measures shall be identified during the undertaking of task specific risk assessments, but the Principal Contractor shall maintain the following general control measures where appropriate:

- Area / material to be dampened down
- Equipment to be fitted with on-tool extraction
- Local exhaust ventilation to be installed
- Provide information, training & guidance to operatives on the hazards & risks of substances and equipment used
- Provide suitable PPE & RPE

5.8 Lone working / Confined spaces

A confined space is not just determined by its size but by the nature of the risk it could pose such as intoxication, suffocation or explosion.

The Principal Contractor shall refer to the Confined Spaces Regulations 1997 to determine if an area of work can be considered a confined space. Where this is the case they will impose a Permit to Work System supported by risk assessments and method statements.

Although lone working is not envisaged on this project, the Principal Contractor must carry out a suitable Lone Working Risk Assessment if any lone working takes place.

5.9 Structural Stability / Temporary works

If required during these works, the Principal Contractor shall ensure that all scaffolds are inspected regularly by a competent person as required by the Works at Height Regulations and these inspections are recorded and are available to view on site in the event of inspection.

5.10 Electrical Safety

Where possible battery operated portable equipment and hand tools shall be used. All other portable equipment and hand held tools must be 110V rated. The supply for this equipment is obtained from an isolating transformer having its centre tapped and earthed. All socket outlets, plugs and connectors must comply with BS 4343. Note – this requirement is applicable even if an RCD is installed at the origin of the supply.

- Only operatives certified and capable of working to the 17 Edition IEE Regulations can undertake electrical works.
- Persons will not be permitted to work on services except for testing and commissioning under strictly controlled conditions, under a permit to work system after a detailed risk assessment and method statement has been produced.
- Any works on live services shall be undertaken in accordance with the Electricity at Work Regulations 1989.
- Electrical contractors are to provide test certificates for all new installations and provide copies of manuals and maintenance procedures.

6. THE HEALTH AND SAFETY FILE

The Health & Safety File provides information needed to allow future construction work, which includes cleaning, maintenance, alterations, refurbishment and demolition, to be carried out safely. The information in the file should alert those doing the work to the risks involved and help them to decide how to work safely. The file is a separate document to any other documents required under the contract, such as the building manual and / or operating and maintenance manuals.

The Principal Designer is responsible for preparing the Health and Safety File and handing it to the Principal Contractor for completion at the end of the project. All designers and contractors have duties under the CDM Regulations to promptly provide information for the file.

A list of information required to be included in the file is included in the appendix to this document. A detailed schedule and programme of information to be provided by individual contractors and designers shall be drawn up by the Principal Designer in consultation with those organisations/ persons. This schedule will be reviewed at regular intervals during the construction period to ensure that all necessary information will be compiled into the file prior to completion. **The health and safety file must be provided a minimum of two weeks prior to practical completion.**



APPENDIX A – FORM F10 NOTIFICATION

These works are not expected to meet the requirements for Notification to the HSE.

APPENDIX B – CONTENTS OF THE H&S FILE

- Key Structural Design Principles, to include all structural drawings (including steelwork contractor), and key design calcs/parameters, all safe working loads for floors and roofs, including plant enclosures, summary of piling design, identification of areas where loadings may preclude the locating of heavy plant, machinery or scaffolding;
- All residual risk information, to include items including but not limited to details of buried services, deleterious materials left in-situ, any hazardous finishes or coatings which require specific control measures during maintenance, repair or removal, sources of stored energy, extra-heavy items of installed plant, areas of restricted access or confined spaces;
- Details of the consideration given to reducing any residual risks, including those noted above and any others not listed which may be present within the structure or which may be present during the maintenance, cleaning, repair or demolition of the structure;
- Design criteria for all mechanical and electrical installations;
- Maintenance access strategy for key items of plant and equipment, to include a schedule of all items of installed plant, along with details of access for maintenance for each;
- Information on the removal / dismantling of plant and equipment (e.g. lifting arrangements; special instructions for dismantling), based on information received from all sub-contractors, to include, but not limited to, details of lifting eyes, lifting techniques, dismantling sequencing, de-gassing requirements;
- All relevant health and safety information in relation to the cleaning and maintaining of and safe access to the structure;
- The nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc., marked up on appropriate drawings;
- Originals of all key safety critical certification, including, but not limited to electrical safety certificates, emergency lighting certificates, fire warning and detection certificates, man-safe testing certificates, gas safety certificates, lifting equipment certificates (thorough inspection as required by LOLER), chlorination certificates;
- Fire strategy drawing, identifying emergency escape and fire appliance routes, compartmentation, fire resisting doors, location of emergency alarm and fire fighting systems, services, shut off valves switches, etc.
- Drawings identifying all key access points for maintenance and repair.

APPENDIX C – CONSTRUCTION PHASE PLAN CHECK LIST

DOES THE PRINCIPAL CONTRACTOR'S CONSTRUCTION STAGE SAFETY PLAN INCLUDE: -	INFORMATION AVAILABLE	COMMENTS
1.0 DESCRIPTION OF PROJECT		
(a)	Project description and programme details including any key dates.	
(b)	Details of client, Principal Designer, designers, Principal Contractor and other consultants.	
(c)	Extent and location of existing records and plans that are relevant to health and safety on site, including information about existing structures when appropriate	
2.0 MANAGEMENT OF THE WORKS		
(a)	Management structure and responsibilities.	
(b)	Health and safety goals for the project and arrangements for monitoring and review of health and safety performance.	
(c) (i)	Arrangements for regular liaison between parties on site,	
(c) (ii)	Arrangements for consultation with the workforce,	
(c) (iii)	Arrangements for the exchange of design information between the client, designers, Principal Designer and contractors on site.	
(c) (iv)	Arrangements for handling design changes during the project.	
(c) (v)	Arrangements for the selection and control of contractors,	
(c) (vi)	Arrangements for the exchange of health and safety information between contractors,	
(c) (vii)	Arrangements for site security,	
(c) (viii)	Arrangements for site induction,	
(c) (ix)	Arrangements for onsite training,	
(c) (x)	Arrangements for welfare facilities and first aid,	
(c) (xi)	Arrangements for the reporting and investigation of accidents and incidents including near misses,	
(c) (xii)	Arrangements for the production and approval of risk assessments and written systems of work	
(d)	Site rules (including drug and alcohol policy)	
(e)	Fire and emergency procedures	

3.0	ARRANGEMENTS FOR CONTROLLING SIGNIFICANT SITE RISKS	INFORMATION AVAILABLE	COMMENTS
(a)	Safety risks, including:		
(a)(i)	Delivery and removal of materials (including waste*) and work equipment taking account of any risks to the public, for example during access to or egress from the site,		
(a)(ii)	Dealing with services - water, electricity and gas, including overhead power lines and temporary electrical installations.		
(a)(iii)	Accommodating adjacent land use.		
(a)(iv)	Stability of structures whilst carrying out construction work, including temporary structures and existing unstable structures.		
(a)(v)	Preventing falls.		
(a)(vi)	Work with or near fragile materials.		
(a)(vii)	Control of lifting operations,		
(a)(viii)	The maintenance of plant and equipment.		
(a)(ix)	Work on excavations and work where there are poor ground conditions.		
(a)(x)	Work on wells, underground earthworks and tunnels.		
(a)(xi)	Work on or near water where there is a risk of drowning.		
(a)(xii)	Work involving diving.		
(a)(xiii)	Work in a caisson or compressed air working.		
(a)(xiv)	Work involving explosives.		
(a)(xv)	Traffic routes and segregation of vehicles and pedestrians.		
(a)(xvi)	Storage of materials (particularly hazardous materials) and work Equipment.		
(a)(xvii)	Any other significant safety risks.		
(b)	Health risks, including:		
(b)(i)	The removal of asbestos,		
(b)(ii)	Dealing with contaminated land,		
(b)(iii)	Manual handling,		



3.0	ARRANGEMENTS FOR CONTROLLING SIGNIFICANT SITE RISKS	INFORMATION AVAILABLE	COMMENTS
(b)(iv)	Use of hazardous substances, particularly where there is a need for health monitoring.		
(b)(v)	Reducing noise and vibration.		
(b)(vi)	Work with ionising radiation.		
(b)(vii)	Exposure to UV radiation (from the sun).		
(b)(viii)	Any other significant health risks.		
4.0	THE HEALTH AND SAFETY FILE		
4.(a)	Layout and format.		
4.(b)	Arrangements for the collection and gathering of information.		
4.(c)	Storage of information.		

APPENDIX D – ATTACHMENTS

TITLE			
IWM Instructions and Guidelines for Contractors			
Asbestos R&D Survey Dec 2016			
Asbestos Type 2 Survey 2011			
IWM Evacuation of Contractors 2017			
IWM Health and Safety Guide A-Z			
IWML Floor Plans Levels 3-5			

(Click on the paperclips to open the attachments)



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