**Terracotta Warriors**

**World Museum Liverpool**

**EXHIBITION SETWORKS STRIP-OUT**

**SCHEDULE OF WORKS**

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| --- | --- | --- | --- |
| **Item Ref** | **Description** | **Rate** | **£** |
| **1.** | **SCHEDULE OF WORKS**  This specification must be read in conjunction with The Hub As-Built drawings for the Terracotta Warrior Exhibition. |  |  |
| **2.** | **PROGRAMME**  The programme, is a eight week programme, works include  Strip-out of the Terracotta Warrior Exhibition Setworks wall structures, archways, overhead structures, mausoleum structure, M&E containment/infrastructure, forming of 1no. new wall partition at the back of the LHS gallery, making good/decoration works to the LHS gallery.  Works on site, to commence 21 January and to be complete by 8 March 2019. Please note to dispose of all structures/setwork material from the Lower Horseshoe gallery, the route through to the Goods Lifts is via the William Brown Room and Temporary Exhibition space on the 2nd floor of World Museum. As of 8 March there will be no access via the above route due to fit-out works for a new exhibition in the Temporary Exhibition Area. Therefore works must be completed by 8 March 2019.  Site working hours will be Monday to Friday 8.00am – 5.00pm  If the contractor wishes to operate outside of these hours, then prior approval must be given by NML Estates Department, at least 24 hours noticed to be provided. |  |  |
| **3.** | **SPECIALIST SUPPLIERS/CONTRACTORS**  A series of nominated/NML direct sub-contractors for different elements of the strip-out works will need to be programmed and coordinated onsite by the main contractors. These include the following contractors:   * CP Hood Ltd – Electrical contractor to remove/dispose of all electrical containment/infrastructure behind the setworks walls * CBRE – NML HVAC maintenance contractor to remove fan coil vent system and relocate wall thermostats * ADT – NML Fire Alarm maintenance contractor to remove FA equipment from setwork walls and reinstate FA system onto existing gallery walls * Stack – NML Data Provider contractor to remove data cabling from behind setwork wall structures |  |  |
| **4.** | **GENERALLY**  As requirement of CDM Regulations 2016, the Main contractor will be the Principal contractor for all works and will be responsible for all site management during the eight week programme of works; this includes the management of all sub-contractors on site.  Principal contractor role to include CDM of the site. Construction Phased Health & Safety plan to be compiled and provide to NML Estates Management Department two weeks prior in advance of works starting on site.  NML Estates department will be responsible for providing skips on site, contractor to advise NML Estates department when skip needs to be removed and replaced. At least 48 hours notice to be provided to NML Estates department.  It is the responsibility of the contractor to visit site and do a walk round of the site with Jenny Green (Senior Project Coordinator or Mark Howells Deputy Director of Estates) to discuss the full remit of the works which are involved in the strip-out of the Exhibition Setworks, M&E infrastructure, and decoration works and discuss the programme of works, and key milestones within the programme.  Contractors to ensure they have included for all works necessary to complete the works whether or not specifically referred to in the below Schedule of Works.  The contractor to include in rates for all tools and equipment required for proper execution and completion of the works [Including Steps, access scaffold and MEWP].  The contractor to check all measurements on site inline with the As-built drawings, prior to commencing the strip-out works on site. |  |  |
| **5.** | **SITE ESTABLISHMENT/SEGREGATION**  Site working hours will be Monday to Friday 8.00am – 5.00pm. If the contractor wishes to operate outside of these hours, then prior approval must be given by NML Estates Department, at least 24 hours noticed to be provided.  Access to the site will be via Cuerden St at the back of the World Museum. Contractors will be able to access the building via the control room at the back of the museum.  The museum public opening hours are 10.00am to 5.00pm, seven days a week, contractors must avoid or minimise activities with high level of noise or vibration during the above operating hours.  Site welfare facilities will be provided by Principal contractor. The Principal contractor to allow for site cabin/mess facility on site in the back of World Museum carpark. All site welfare requirements to be discussed and agreed with NML upon appointment.  Refer to Appendix M re. site compound at the back of World Museum car park.  The contractor is responsible for the management of the compound and contractor parking within the compound. NML will not be able to provide additional parking outside the designated compound.  Materials to be moved/ removed from the gallery and disposed of in the skip provided at the back of the museum, in bay 29. As mentioned above NML will be responsible for order of any skips requirements and replacements upon request.  All equipment and materials to be moved up to or from the gallery space via the Goods Lift, which will be managed on a rota system, in line with other NML venue deliveries.  Contractor to ensure access/egress to the site via the back of the museum, good lifts/loading bay to the 2nd floor exhibition area must kept clear at all times from debris and is not used for storage of materials or equipment. There will be a designated route onto site, which should be followed at all times, unless otherwise agreed with Visitor Services Managers or Estate Management team.  Contractor to provide suitable dust protection measures to prevent migration of dust from site to adjacent public areas, particularly areas such as the Clore Natural History Centre, Bughouse and Streets off the LHS gallery. To allow for sealing around all final exit doors from the site area, openings and doors into service voids, high level openings, any other areas likely to be affected by works.  Contractor to allow for daily clean of all work areas on a daily basis to prevent build up of dust, debris etc and to prevent migration of dust to other areas of the building, this includes the goods lift.  Client will provide floor protection within the Lower Horseshoe gallery, providing a designated route to and from the gallery, to mitigate damage to existing floors Lower Horseshoe floor.  Contractor to provide additional floor protection within William Brown Room, Old Entrance Area and Temp Exhibition Area. The protective flooring will take into consideration types of equipment, including weights, wheels, which will be used during the strip-out of the gallery.  Contractor will be responsible for the removal and disposal of all floor protection at the end of the contract. If any floor protection is in good condition at the end of the works, NML would like to keep protection and reuse protection in another venue.  Contractor to provide suitable protection for any existing walls and corners of the gallery.  Contractor to coordinate on a daily basis with WM Gallery Managers for the gallery smoke head system to be isolated between the site hours of 8am – 5pm and turned back on as of an evening. Contractor to provide roaming patrol of the site during the day between the above site hours.  Contractor to refer to and adhere to site plan showing entry into the building and routes through the building to site. As mentioned above any changes to site route to be discussed NML Visitor Services Managers and Estates Management Department. |  |  |
| **6.** | **STRIP-OUT OF EXISTING EXHIBITION SETWORKS STRUCTURES**  Gallery layout provided, please ref to drawing no. NML 1-01. Areas the contractor will be responsible for re. strip out, removing and disposing, making good and painting have been annotated on the layout. Layout also includes details of other nominated contractor works which will be under the management/supervision of the Principal contractor.  The Contractor to note the first element of work to be carried out, are the works detailed under Area 1 below. The new Fire Rated wall partition needs to be in place prior to the strip-out of the rest of the Lower Horseshoe gallery. |  |  |
|  | **Area 1: Mausoleum**  The mausoleum structure has been built around the existing butterfly case from the Bughouse gallery. Wall between the exhibition shop and Mausoleum to be removed to uncover the butterfly case. The large display case to be moved forward approx 2 metres, once wall is uncovered. Case move to be carried out by NML Production Team, the Principal Contractor to coordinate with NML when this move needs to take place.  Contractor to design/construct new fire rated stud partition wall with fire door access. Wall to be full height to ceiling and extended across the width of the gallery.   * Height: To be bulkhead height approx 5m * Width: To be length of room approx 10m * Fire rating: Wall to provide 30min fire rating * Doors: Client to provide contractor with double door set 1981 x 838 x 44mm FD30s. * Cables: Within the wall there is 1no. armoured power cable which needs to be brought down within stud partition wall but contained within its own box containment, and routed out of the wall at the bottom and connected to the relocated Distribution Board (DB relocation requirement detailed under section 7).   The lighting track in this area will need to be reconfigured to allow for wall height. Contractor to design and provide production drawings to NML for sign-off. Note NML will supply 1no. pair of fire rated doors, and door furniture which will be reused from the Terracotta Warrior Exhibition.  Refer to dwg:  Mausoleum General Assembly – Dwg no. 3557 (E) 080 Rev 2 |  | **£** |
|  | **Area 2: Mausoleum**  Carefully dismantle, remove and dispose of Mausoleum structure, including truss framework.  Wall has been constructed of MDF formers on slanted base, fixed with screws to softwood cross rails. The walls are constructed with softwood walling and ceiling frame, clad with plywood.  The truss framework is constructed and fixed with aluminium bolts.  For full details of the framework of the Mausoleum structure,  *Refer to dwg:*  *The Hub – As Built*   * *Mausoleum General Assembly – Dwg no. 3557(E)080 Rev 2* * *Mausoleum Exploded View – Dwg no. 3557(E)081 Rev 2* * *Mausoleum Goalpost Framework – Dwg no. 3557(E)105 Rev 2* |  | **£** |
|  | **Area 3: Dividing wall 5**  Carefully dismantle, remove and dispose of Archway and Pagoda structure. Archway and Pagoda top have been constructed using softwood frames screwed together, supported by an 18mm MDF skeleton wall, and clad with 12mm standard plasterboard to the MDF frame, taped and jointed.  *Refer to drawing:*  *The Hub – As Built*   * *Dividing wall 05 Plans*   *Dwg No – 3557(L)017*   * *Dividing wall 05 Elevations*   *Dwg No – 3557(L)018*   * *Dividing wall 05 Elevations*   *Dwg No – 3557(L)019* |  | **£** |
|  | **Area 4: Dividing wall 3**  Carefully dismantle, remove and dispose of Dividing wall 03, including decorative screen. Wall structure constructed using softwood fames screwed together, supported by 18mm MDF skeleton frame structure and clad with 12mm plasterboard. Skeleton wall frame structured screwed to perimeter wall.  *Refer to drawing:*  *The Hub – As Built*   * *Dividing Wall 03 Elevations and Skeleton*   *Dwg No – 3557(L)015*   * *Dividing Wall 03 – Plan and Section Through*   *Dwg No. 3557(L)016* |  | **£** |
|  | **Area 5: Dividing wall 2**  Carefully dismantle, remove and dispose of Dividing wall 02. Wall structure constructed using softwood frames screwed together, supported by an 18mm MDF skeleton frame structure, and clad with 12mm plasterboard.  *Refer to drawing:*  *The Hub – As Built*   * *Dividing Wall 02 Plans & Height Section*   *Dwg No – 3557(L)013*   * *Dividing Wall 02 – Elevations*   *Dwg No. 3557(L)014* |  | **£** |
|  | **Area 6: Dividing wall 1**  Carefully dismantle, remove and dispose of Dividing wall 01. Wall structures, archways and pagoda constructed using softwood frames screwed together, supported by an 18mm MDF skeleton frame structure, and clad with 12mm plasterboard. The skeleton wall frame was screwed into perimeter wall frame prior to wall being clad with plasterboard.  *Refer to drawings:*  *The Hub – As Built*   * *GA Plan*   *Dwg No. 3557(A)001, Rev AB*   * *Dividing Wall 01 Plan*   *Dwg No – 3557(L)010*   * *Dividing Wall 01 Elevation + Skeleton*   *Dwg No – 3557(L)011*   * *Dividing Wall 01 – Height Section*   *Dwg No. 3557(L)012* |  | **£** |
|  | **Area 7: Overhead Canopy**    Carefully dismantle, remove and dispose of 2no. Gallery Canopy (R/H and L/H). Wall construction includes removal of steel support frame built into 2no. canopy’s, with supporting joists sitting on top of a steel support. The main canopy wall has been constructed using softwood frame screwed together, supporting 18mm MDF frame structure which sits above the steel support and the underneath lower walls and fixed to perimeter wall, clad in plasterboard. There will be a section of perimeter wall which will have no plasterboard, only the frame structure. Please note the 2no. steel support frame structure within the canopy structure has been fixed to the floor using bolts. Floor fixings to be removed carefully, to mitigate damage to the existing floor.  *Refer to drawing:*  *The Hub – As Built*   * *Gallery Elevation, R/H Canopy*   *Dwg No – 3557(L)006, Rev AB*   * *Gallery Elevation, R/H Canopy*   *Dwg No – 3557(L)007, Rev AB*   * *Gallery Elevation, L/H Canopy*   *Dwg No – 3557(L)008, Rev AB*   * *Gallery Elevation, L/H Canopy*   *Dwg No – 3557(L)009, Rev AB* |  | **£** |
|  | **Area 8 - Perimeter wall**  Carefully dismantle, remove and dispose of perimeter setwork wall structures throughout the gallery, starting from the back of LHS gallery. Height of perimeter walls structures are approx. 4.4metres tall. Sqm of LHS Gallery is approx. 980sqm.  The perimeter wall structures have been constructed using softwood frames screwed together, supported by an 18mm MDF skeleton wall, and clad with 12mm standard plasterboard to the MDF frame, taped and jointed. There should be minimal wall fixings; most of the wall structure has been built with the method of propping/setting wall structure against the permanent gallery wall, however in places there will be some floor fixings.  Behind the perimeter walls, the windows were blacked out for the exhibition using material which was hung over the windows. Black material to be removed carefully, retained and handover to NML for future use.  *Refer to drawing:*  *The Hub – As Built*   * *GA Plan*   *Dwg No. 3557(A)001, Rev AB*   * *Gallery Elevations + Skeleton*   *Dwg No – 3557(L)001, Rev AB*   * *Gallery Elevations + Skeleton*   *Dwg No – 3557(L)002, Rev AB*   * *Gallery Elevations + Skeleton*   *Dwg No – 3557(L)003, Rev AB*   * *Gallery Elevations + Skeleton*   *Dwg No – 3557(L)004, Rev AB*   * *Gallery Elevations + Skeleton*   *Dwg No – 3557(L)005, Rev AB* |  | **£** |
| **7.** | **ELECTRICAL WORKS:**  Please refer to KGA Partnership's drawings within Appendix J with regards to the requirements for the electrical strip-out works:     * *KGA Electrical Services small power*   *Dwg no. 4009-E-500*  Behind the perimeter wall structure there is cable containment which runs the length of the gallery on both sides, this was installed during the Fit-Out phase to provide power and data requirements for the exhibition.  CP Hood was the electrical contractor for the fit-out and installed the electrical infrastructure into the gallery. Under this contract NML would like to recommend the Principal contractor approaches CP Hood Electrical Ltd to carry out the works to strip-out and dispose the electrical infrastructure for the gallery. Works will include the isolation, disconnection, removal and disposal of all cables and wall cable containment.  As part of the fit-out an additional 3no. Distribution Boards and Switched spur flex outlets on 9no. pattress were installed for the requirements of the exhibition. NML would like to retain all DBs and pattress’ and black front of house sockets for future use. The 9no. pattress’ are labelled DB, DC, DD, DE, DF, DG, DH, DJ, DK, DL, DM, and Distribution Boards are labelled DB1, DB2 and DB3.  Refer to dwg   * *KGA Electrical Services small power*   *Dwg no. 4009-E-500.*  NML would like to retain these items; these are not to be disposed off. NML to advise contractor re. storage location for the pattress’/black front of house socket and DB 1 & 2.  DB 3 at the back of the LHS Gallery to be retained and relocated/installed to an area at the back of the LHS Gallery (NML to confirm). Location of DB will need to be near the new wall divide between the LHS and Bughouse. DB3 to be fitted on the side of the LHS Gallery and housed in its own DB cupboard. The existing armoured powered cables to be re-routed down within the new fire rated stud partitioned wall but contained within its own box containment away from any wall insulation, and routed out of the wall at the bottom and connected to relocated DB3  Back of the Bughouse/LHS the lighting track to be altered and reconfigured to make way for the new wall partition. Lighting track to be altered into a linear position, the current lighting track design is diagonally positioned to suit the previous Bughouse gallery layout.  All Fire Exit signs that have been installed on the Exhibition wall structure are to be removed. The original existing fire exits signs for the gallery should still be in situ, original fire exit signs to be removed and replaced with new fire exit signs.  Contractor details:  **C P Hood Electrical Ltd**  11 Sinclair Way  Prescot Business Park  Knowsley  Liverpool  L34 1QL  Tel: 0151 493 0008  e-mail: [craig@cphoodelectical.co.uk](mailto:craig@cphoodelectical.co.uk) |  | **£** |
| **8.** | **MECHANICAL STRIP-OUT WORKS:**  3no. hard wired thermostats where brought forward and repositioned on the front of the exhibition setwork wall structures. As and when wall structures are removed, Principal contractor to coordinate with NML Estates Department/NML HVAC maintenance contractor (CBRE) to remove, reposition and hard wire all thermostats back to the permanent gallery wall.  17no. Fan coil units/vent grilles where installed and fitted off the existing system behind the perimeter wall, to provide heating and cooling to the exhibition. As and when wall structures are removed, Principal contractor to coordinate with NML Estate Management Department/NML HVAC maintenance contractor (CBRE) to remove fan coil units/vents.  All Mechanical related works to be carried out by NML HVAC Maintenance contractor CBRE. |  |  |
| **9.** | **DATA INFRASTRUCTURE STRIP-OUT**  Data cables were installed during the Fit-out phase to provide data requirements for the different Multi-media and AV interactives within the exhibition. The data cables are housed within tray containment which runs the length of the gallery on both sides. Stack are NML Data provider, the Principal contractor to coordinate with NML Estates Department/IS Department on date for Stack to visit site to remove and dispose of all data cabling throughout the gallery. |  | **£** |
| **10.** | **FIRE ALARM/SOUNDER STRIP-OUT**  Wireless Fire Alarm detection was installed behind the setwork perimeter wall structures at high level to provide fire detection during the exhibition. As and when setwork wall structures are removed, Principal contractor to coordinate with NML Estate Management Team and NML Fire Alarm Maintenance contractor (ADT) to remove all detection equipment.  The existing gallery break glass call points where extended/brought forward and fitted to exhibition wall structures. As and when setwork wall structures are removed, Principal contractor to coordinate with NML Estate Management Team/ NML Fire Alarm Maintenance contractor (ADT) the removal of all break glass points and refitting of all break glass points to permanent gallery walls. |  | **£** |
| **11.** | **DECORATION WORKS**  Once all exhibition setwork wall structures and containments have been dismantled, removed and disposed of, the existing gallery walls will need to be filled/made good prior to decoration works being carried out.  All walls to be filled/made good following the removal of all exhibition structures.  All wall to be painted as indicated on drawing ref NML Dwg no. 1/01 (Terracotta Strip-Out Works). Allow for the supply and installation of the new paint finish to the existing permanent gallery walls, all walls to have 2no coats of paint; colour to be agreed with contractor in advance of works starting on site. Sqm of Lower Horseshoe gallery approx. 980sqm.  Allow for the supply and installation of the new paint finish to the existing doors frames, windows, architraves and skirting’s as per drawing. Colour of paint to be white Acrylic Durable Matt Emulsion  If contractor is to spray apply any of the paint finishes then they must ensure that all vents/smoke heads leading from the gallery space or any other openings are suitably sealed prior to any painting works taking place. These works must not impede on the ventilation requirements to any other parts of the building. |  | **£** |
| **12.** | **PROVISIONAL SUM**  Allow for the Provisional Sum of **£5,000.00** (Five Thousand Pounds) for undertaking necessary Fire stopping works to various areas. Exact extent of works required to be reviewed on site with NML Estates Team.  Allow for the Provisional Sum of **£5,000.00** (Five Thousand Pounds) for undertaking any necessary additional removal works which are over and above the details provide in the above schedule of works.  Allow a Contingency Sum of **£5,000.00** (Five Thousand Pounds) for any unforeseen works that may found to be required once works are underway. This sum will be expended or deducted at the discretion of the Client |  | **£5,000**  **£5,000**  **£5,000** |
|  | **TOTAL** |  | **£** |

**TENDER SUMMARY SHEET**

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| --- | --- | --- |
| **1** | **Preliminaries** | **£** |
| **2** | **Area 1** | **£** |
| **3** | **Area 2** | **£** |
| **4** | **Area 3** | **£** |
| **5** | **Area 4** | **£** |
| **6** | **Area 5** | **£** |
| **7** | **Area 6** | **£** |
| **8** | **Area 7** | **£** |
| **9** | **Area 8** | **£** |
| **10** | **Electrical works** | **£** |
| **11** | **Decoration works** | **£** |
| **12** | **Provisional works** | **£15,000** |
|  | **TOTAL** | **£** |

**THIS FORM MUST BE COMPLETED AND RETURNED TOGETHER WITH THE**

**TENDER**