GENERAL HERITAGE MANAGEMENT PRINCIPLES

All significant interventions notified and preceded through documentary research and detailed visual and if necessary, physical investigation.

Works will be planned to ensure minimum intervention and disturbance to the fabric of the building. Proposed works will be evaluated and for their potential impact on the fabric of the building and notified accordingly.

Intervention works have been carefully considered and justified in terms of its necessity as a repair, an adaptation which better reveals it's significance, or an enhancement which extends is sustainable use.

Interventions to the fabric which protect or better reveal the buildings heritage will be encouraged, and change which could cause unmitigated harm to the significance of the building will be avoided.

Every element of the works will be completed sympathetically by competent operatives with a proven track record of working within a Grade ll Listed environment. The project culture of care, consideration and preservation of the buildings heritage will be maintained.

This culture will be administered via contractor selection, induction, and relevant toolbox talks throughout the duration of the project.

If required, the heritage consultant will be engaged as works progress to mitigate any detrimental effect on the heritage components of the building.

Before any works commence, the management team will carry out a review of the work area to understand the building fabric within and adjacent to the space.

METHODOLOGY

1. SETTING TO WORK

Prior to ANY work commencing on site, scaffold chargehand/supervisor must be set to work by Myco Ltd site manager.

2. METHOD OF WORKING

Materials Delivery and Collection:

- ANSA to arrange for Lifting Beam to be tested.
- ANSA to assess site conditions during initial lift shaft condition survey and order required equipment to allow for safe transportation of all materials into the agreed storage container. Bring to site tools and materials required to carry with the lift installation.
- Install temporary 110V LED shaft lighting where applicable.
- Lifting plans shall be completed on site and approved by the Project Supervisor.
- Delivery of all equipment to site will initially be by LGV vehicle into offloading area

- Whilst performing lifting operations and manoeuvring heavy objects, people other than lift engineers must be diverted away from areas where they may be put at risk, others will be diverted by ANSA banksman, also by use of adequate barriers and signage. Offloading must only take place in agreed area.
- Once all equipment is offloaded it will then be moved from designated offloading area to designated storage container.

Scaffold Erect

- Uprights will be sited on timber sole pad arrangement as per item specific design and linked with ledgers and transoms.
- The deck will then be boarded and handrailed for further progression.
- Following the completion of the 1st lift the Scaffold to be erected in the same manner to full height, lift by lift, by progressively moving scaffold decks up during construction with ledger and sway bracing added as per the design.
- Following the erect of each lift; the next-lift guardrail is to be installed from the current lift with the use of Scaff-step to ensure operatives are continuously hand-railed in during construction.
- When working at height, operatives to ensure they are always clipped on.
- All tools must also be tethered, and all tethers are to be inspected daily prior to work commencing.
- Scaffold materials to be lifted from ground level with the use of a rope & wheel.
- The scaffold is to be tied by tubes placed into the walls of the riser to create a positive tie. There will be no intrusive anchors.

Scaffold Handover & Inspection:

- Upon completion of scaffold structures, scaffolds to be tagged using the Scaff-Tag system.
- A Handover Certificate will be produced and issued to the Myco Ltd scaffold site manager.
- Following handover, the scaffolds must be inspected every 7 days since the last inspection (or immediately following exposure to adverse weather conditions, likely to have affected its strength or stability) and the inspection recorded.
- An Inspection Report will then be produced and issued to the nominated Myco Ltd engineer.
- Following completion of the Myco Ltd work and the scaffold is no longer required, the Scaff-Tag will be removed ready for the de-netting/dismantling operations.

Checking Shaft Walls:

- The shaft is to be measured accurately in order to enable later compensation of inaccuracies of the building construction, and to transfer the reference lines of the arrangement drawing to the shaft.
- Set template for Guide Installation as per the General Arrangement drawings.
- Plumb lines will then need to be dropped by engineer into the pit.
- Actual shaft dimensions sometimes can deviate considerably from the planned ones. At any rate, the admissible building tolerance is to be observed. It might turn out necessary to modify the reference position of the guide rails accordingly.
- Check if additional steel work to extend guide rail brackets is required to compensate shaft tolerances.

Shaft Light Installation:

- Use LED 5ft light fittings. Top & bottom emergency. Prewire ceiling roses to connect light fittings, galvanised conduit w through boxes for wiring.
- Mark up position for galvanised conduit. Install saddles every 1.5m apart, use 7mm brown plugs. Install 3,5m lengths of galvanised conduit with through boxes.
- Install light fittings starting from pit area. First fitting, emergency battery backup, to be installed to the wall not higher tan 500mm from pit floor level. Continue with installation of non-emergency light fittings approx. 3.5m apart from each other. Top light fitting in shaft headroom is to be emergency backed up and installed no more than 500mm from lift shaft ceiling.
- Install single wires, this is to be 1.5mm 2 tri rated singles in conduit to allow for relay light switching. Terminate in each ceiling rose, install ceiling rose to through boxes. Leave long enough wires to reach to lift controller. These are to be terminated in lift controller in later stage of installation.
- Wire in each ceiling rose cable to light fittings and fit diffusers

Machine, Machine Bed Plate and Rope Hitch Beam Installation:

- Use existing lift to transport new machine, bed plate, ropes hitch beams and controller to top floor landing and store behind the hoarding until guides are installed and ready for the equipment to be installed.
- Test existing lifting beam in shaft headroom before use. Make sure certification is in place before carrying out with lifting operations.
- Complete lifting plan for bed plate, machine, and ropes hitch beams transportation into the lift shaft headroom.
- Use manual chain block to transport bed plate and the machine from top floor landing into lift shaft headroom and install on guides. Observe manufacturer installation manual.
- Ensure all components are available according to the supplied GA Drawing, including all rubber isolation.
- Use manual chain block to transport ropes hitch beams into lift shaft headroom and position in previously prepared pockets. Install restraining brackets and secure. Observe manufacturer installation manual.

Guide Rail Installation:

- Before installing the guide rails, please check that the actual pit depth on site matches the one stated in the drawings. Any difference in travel height, headroom, or pit depth with regards to the drawing must be compensated in order to avoid problems with interferences between elements due to noncompliance of the safety clearances, for instance between car frame and machine bed plate.
- Mark up guide bracket levels as per installation drawings and drill holes for fixings.
- Install all guide brackets using supplied fixings.
- The starting/ supportive guide rail plates are to be placed under the rails, perfectly plumbed and level.
- Transfer guides from our designated storage location into the lift shaft. Use MiniFor attached to lifting beam at top of shaft to transfer guides into the shaft. Method Statement Rev Jan 2022 4

- Install the bottom set of guides to the pit plate and align the guide brackets before fixing to the shaft wall with suitable/specified fixings.
- Assembly of the guide rails must be carried out gradually by group of portions at the same level, starting within the first group of four rails, then the following group and so on to the top.
- Position the remaining guides, aligning them with the template lines created. Use MiniFor to move guides into position.

Installation of Car and Counterweight Buffers:

- Align car buffer stools within guides and fix to the floor with provided fixings. Install hydraulic buffers on top of previously installed buffer stools with provided fixings.
- Align counterweight buffers within counterweight guides as per assembly drawings and fix into the floor with provided fixings.

Counterweight installation

- Transfer counterweight frame and associated equipment from our designated storage location into the lift shaft using MiniFor hoist.
- Dismantle Counterweight Frame. Use Minifor hoist to take all four elements, two uprights, top and bottom beam into the lift shaft and position for assembly. Beams are 250kg each, uprights are 150kg each.
- Install the counterweight frame between the CWT guides in the pit, as per the manufacturer's drawing.
- Add required amount of filler weights. Weights are all 10kg each, operatives will use manual handling technique to fill into the Counterweight Frame.
- Lift counterweight to top of the shaft and position for roping.
- Use additional 3T webbing sling and shackle to restrain counterweight frame to machine bedplate as secondary protection from falling.

Car Frame Installation:

- Transfer all Car Frame equipment from our designated storage location to the lift shaft using MiniFor hoist.
- Position frame vertical uprights within car guides.
- Position bottom cress beam within vertical upright and fixed together using provided fixings.
- Repeat above operation for upper cross beam and fixed to vertical uprights with provided fixings.
- Position beam with divertor pulleys at top of upper cross beam as per assembly drawings and fix together with provided fixings.

Installation of Controller and Machine Wiring:

- Position lift cabinet at top floor as per GA drawings and fixed to the wall with provided fixings.
- Prepare cables containment inside lift shaft between machine and controller. This is to be heavy duty cable tray for all machine high voltage cables. Install 50mm x 50mm galvanised trunking at least 150mm away from cable tray for machine encoder.

- Use provided cables to connect machine power supply, brakes, brake swich monitoring, and thermistor to the controller. These cables to be secured to cable tray with cable ties.
- Use provided cable to connect machine encoder with inverter. This cable to be run in previously installed galvanised trunking to avoid any interference from power cables.
- Connect controller to mains isolator.
- Prepare lift controller for installation operation.
- Switch on mains isolator in top of the shaft and verify power supply voltage are the controller terminals.
- Switch on mains isolator inside lift controller.
- Check machine parameters in machine inverter. Make necessary adjustment as required.
- Execute machine auto tuning operation in the machine inverter. This is required to establish correct encoder angle offset. One auto tunning is completed, verify correct motor turning direction. Adjust parameters as required.
- Once auto tuning operation is completed, isolate the power supply using correct LOTO procedure.

Assembly of the traction ropes:

- Manual handling technique will be used to transfer ropes from our storage area to the top landing.
- Rope on the reel now positioned on the top floor landing. One person to control the drum from top landing, whilst the other controls the rope being lowered down into the shaft.
- Rope goes over the machine sheave first so that friction also prevents ropes from slippage, around the counterweight divertor and fixed to the counterweight side hitch plate.
- Remaining rope is lowered to the car top divertor (at the bottom of the shaft) and back up to the car side hitch plate.
- This procedure is then repeated with all the ropes leaving tails on all ropes long enough for adjustments.
- Prior to placing the weight of the system onto the ropes the engineers must ensure no ropes have become crossed during their installation.
- After the length of ropes has been verified, they should be tensioned correctly, such that all ropes are evenly loaded. The rope ends have balancing springs fitted on the counterweight hitch plate. All ropes to be tensioned so that balancing springs are all equal. Note - During commissioning, tension will be checked and fine adjusted using electronic rope tensioning device.
- Guarding must be used to protect the engineers working around the machine immediately after installation of the ropes.

Overspeed Governor Installation:

- The overspeed governor is supplied to be installed alongside the ropes dead hitch point. It is bolted by an additional plate and supplied fixings.
- Install overspeed governor rope and connect to car safety gear at lower cross beam of car sling.

Car Assembly:

Note - Operatives will be located at the bottom landing opening whilst lifting materials into the shaft. Operatives will be working from inside the shaft whilst positioning and assembling the parts.

- Using MiniFor hoist, place car platform within the car sling, align with the centreline of the shaft and secure to the sling with provided fixings. Install car door sill.
- Use MiniFor hoist to bring into to the shaft back and side walls of the car, align with platform and fix to the platform using supplied fixings.
- Use MiniFor hoist to bring into the shaft car roof and lift above the assembled car wall, align and fix into car walls with provided fixings.
- Install balustrade on top of car around car roof edges.
- Square the car stabilise using stabilising brackets.

Landing Door Assembly:

Entrances installed inside the lift shaft. Hoardings will be left in situ for the duration of the below activity.

- Please check the specific installation & operation instructions sent along with the product.
- Entrances should be transferred from our designated storage are to the lift.
- Entrances will then be lifted in the lift car and positioned on each landing starting with the top floor.
- Where floor finishes are not complete the contractor will be required to clearly mark 1000mm above FFL to enable entrances to be fixed at the required level.
- Position landing sill horizontally according to the layout drawings using the car guides as a reference.
- Fix the entrance unit as per the manufacturer's instructions, using the correct specified fixings.

Car Door Assembly:

- Please check the specific installation & operation instructions sent along with the product.
- Car Doors & Operators should be transferred from our designated storage are to the lift and taken to top floor using lift car.
- Lift Car to be positioned above the lowest floor. Door operator to be installed from top of car with car sill at lowest floor level.
- Assemble new car door operator as per the manufacturer's instructions, securing it to the lift car, however, ensure that the car isolation is not breeched.
- Check the alignment of the top track to the bottom track.
- Fit Door Panels, aligning them as necessary.
- Fit the door skate, checking the alignment to the landing locks.

Lift Shaft Electrical Wiring:

- Install shaft wiring containment – 75mm x 75mm galvanised trunking.
- Use provided wiring looms and assembly manuals to connect all shaft equipment, door locks, terminal switches, buffers, stop switches, pit inspection control, pit socket, shaft light switches.

Car Top Electrical Equipment and Connections:

- Install car top wiring containment – 50mm x 50mm galvanised trunking.
- Instal car top controller as pes assembly manual.
- Install safety edge controllers
- Install shaft encoder
- Connect all equipment as per installation wiring manual.

Commissioning and Testing:

- Ensure all pre-adjustments have been carried out as per the manufacturer's instructions prior to allowing lift to run on inspection, or normal speed.
- The Lift is to be commissioned to the manufacturer's performance specification
- The Lift will be tested to: BSEN81:20/50

3. ENVIROMENTAL

No Environmental issues are envisaged with this method of working. Spill kits are to be available at the point of work.

All waste, banding and packaging are to be placed in the required skips.

DRAWING REGISTER

The documents detailed below are included within this submission.

SLH_Lift Numbers
MI054_Sunlight House_MYCO LBC Statement
100.24113 Sunlight House Lifts Report P3
Sunlight House – ANSA Drawing Register – 27.11.2024
Sunlight House – GA Drawings – Atkinson Street – 27.11.2024
Sunlight House Sample Board