

GENERAL METHOD STATEMENT

For South Lodge, Hampstead

Brick Façade DOFF Super-heated Steam Cleaning & repairs

The Building is Grade II listed and will require careful inspection/examination/consideration before any cleaning or repair works commence.

Each façade will require careful consideration before the trials/samples are carried out. Each exemplar/test panel will be agreed with the Main Contractor, these will be agreed & clearly referenced before works commence.

The Super-Heated system samples will be carried out in controlled conditions and in line with Manufactuers recommendations by our accredited and trained operatives.

Initially the cleaning trails will comprise the Super heated (DOFF) water cleaning system only, no cleaning agents, chemicals or abrasive media will be used unless agreed and covered by adapted RAM's and COSHH assessments.

Selected trial areas would ideally be representative of the substrate, soiling and detail of the main works, all cleaning samples will be fully recorded, providing specific information such as flow rate, pressure, temperature, duration and face to nozzle distance, all pertinent information to be submitted to appropriate stakeholders. Acceptable test areas will be retained as a control panel for the main works.

It is noted that decorative sections of the cills, copings, or window hoods which contain non-soluble soiling/carbon deposits may not respond to the super-heated (DOFF) system.

Potentially any such area can be evaluated after the super-heated (DOFF) Cleaning is completed and if required small areas of further cleaning can be reviewed for additional cleaning measures if required.

The brick pointing and repairs will be undertaken ensuring the restoration/repairs match the various thoroughly cleaned surfaces.

All cleaning operatives are qualified, experienced, receive ongoing training and hold suitable qualifications. All operatives will hold valid Skilled Worker CSCS cards deemed for their trade and be inducted to the Project. All tools and equipment including the Super-Heated cleaning system will be maintained and carefully checked before use as will frequent check of protection.



Preparation and logistics

Equipment should be placed in well-ventilated area out of reach of the lance or other water spray. The exhaust must not be covered or obscured. Any electric equipment used will be PAT tested prior use and equipment register will be kept on site. As advised by Manufacturer, only kerosene will be used as the fuel for the the super hated (DOFF) cleaning machine. Kerosene will be stored in suitable marked containers away from direct sun light in a cage. Precautions will be made to avoid accidental spillage. A spill kit will be on hand.

Adjacent windows and doors will be protected as required, as will any aperture which may allow water ingress by means of polythene and waterproof tape.

Any pedestrian traffic management, where required, will be by the main contractor. Our area of the works will be cornered off using hazard tape to prevent other trades entering the area.

Gutters and down pipes leading to soakaways will be diverted or filtered in order that removed solid matters do not block the drainage system. All gutters will be inspected prior to works commencing to ensure they are in good working order and all water run-off's will be monitored and controlled, and if any issue with managing water is discovered, work will be stopped until the issue is rectified.

Work would commence at the uppermost level and continue downward, this will soak the soiling below and reduce need for any re-rinsing.

The facade will be cleaned using specialist washing system, this will remove dirt and grime that has bonded to the brickwork fabric with a combination of gentle heat and pressure without eroding the surface. The surface of the Brick facades will be cleaned only to remove any soluble soiling and friable pollutants.

The temperature and pressure will be monitored and may not need to exceed 750 p.s.i. although the maximum operating pressure is 100 bar 1450 p.s.i.

The substrate will be cleaned from the top down with a fan nozzle and turbo head, where required, but kept at a suitable distance to avoid gun shading. The exact/optimum temperature and pressure will be adjusted to carry out the optimum cleaning – temperatures range between 30 to 150 °C. Balance will be achieved in order to obtain an effective cleaning result to all façade fabrics.

Any vegetations would need to be removed during cleaning process, our recommendation would then be to treat these areas with biocide. Should there be any loose façade fabrics during cleaning process, these will be carefully removed and stored for re-use if possible.



Other works

Once the Super-Heated cleaning is completed, we suggest a site inspection with the client's team to discuss/agree the next steps with regards to restoration works. This will allow our specialist team to have better understanding of what is expected in terms of scope. We will carry out full photographic defect survey to all elevations and give our recommendations (and options), these can be discussed and developed with other requirements such as water proofing, lead coverings, doors & windows, fixtures & fittings and bird deterrents.

Stone copings/Cills Repairs

Any repairs required would start at the top level working down the scaffolding levels. There could be various repair types to undertake these will be listed in our surveyed schedule once the cleaning is completed. Each item would be photographed, and each repair fully depicted before and after, this will be done for O & M recording purposes. Each picture will relate to a repair and a corresponding reference number on the elevation drawing which will identify the locations. Each repair will have a repair type number allocated to it and the drawings will have a KEY explaining each type.

Typical repairs

Cracks

Dowelling across cracks running through stonework (structural repair), 6mm x 60mm stainless dowels be fixed into cross stitched drilled holes by way of resin application 'Gun' and then the joint would be repaired using matching Lime mortar.

Raking out brickwork

Ensuring correct PPE is being worn, cut through the middle of the existing pointing joint using a 5inch angle grinder with vacuum adaption to prevent dust. Cut through 1-2m length of pointing and remove grinder from the joint, bending your knees slightly start again at the next joint down and repeating. Once a cut has been made in to the joint, using a hand chisel and hammer, starting at the end of the run carefully pluck the existing joint from between the brickwork, and repeat until all the existing mortar has been removed. Ensuring to minimise falling mortar weep up all debris, bag up and dispose to contractors skip.

Re-pointing

The horizontal bed joint should be raked out using hand tools if possible, to avoid creating dust, but if necessary, a 5-inch micro bladed grinder could be used. In both methods, water suppression can be used to damp down and stop dust. The joint should be re-pointed to at least 2 and a half times width using Lime mortar as specified.

Ties/rusty fixings

There are numerous redundant fixing holes, signage brackets, switches and pipe work that will require careful removal. Following the removal of fixings, the brick and stone work will require matching mortar repairs or indents. Salvaged or matched reclaimed bricks could be used for brick indents. Stone to be made good with specialist repair mortar.



Brick repairs

To achieve the best match defective bricks would need to be removed and replaced with new bricks matching in size, texture and colour. Alternatively, it may be prudent to salvage bricks where possible during the demolition process. Another option would be brick facing – cut defective bricks back, face with stone lime mortar and apply matching colour paint. Care should be taken to ensure that the continuity of the original brick bonding is maintained. All new brickwork is to be accurately aligned with the existing brickwork. Crack stitching where necessary, every third bed joint rising up the fracture using 1m long Helibar set in resin.