

latitude

0706 The Lighthouse Block

London WC1X

Architectural Specification – Cleaning Masonry/Concrete

(C40 - Construction issue)

13 January 2014

C40 Cleaning masonry/ concrete

To be read with Preliminaries/ General conditions.

GENERAL/ PREPARATION

100A INFORMATION TO BE SUPPLIED FOR APPROVAL BY ARCHITECT AND CAMDEN PLANNING

- Submit: Detailed Method Statement
The following clauses are for guidance only and it is the responsibility of the sub-contractor to produce detailed method statements regarding the cleaning of the masonry and stucco facade of The Lighthouse Block, London WC1X
Reference should be made to Latitude [21.5] and [41.1] series drawings, and to PAYE facade condition report and cleaning and investigation report.

105A LISTED BUILDING All proposed works to existing facades to be submitted to and approved by the local authority before commencement.

110A SCOPE OF WORK To the Lighthouse Block:

Please note: All work to be carried out by a specialist masonry conservation sub-contractor after submitting a detailed method statement for each item listed below.

- Cleaning the existing brickwork on facades facing Pentonville Road and Grays Inn Road. Brickwork to be carefully cleaned using DOFF or equal and approved hot wash system combined with Neolith 625 or equal and approved to remove light surface soiling. In instances of heavier soiling consider using a low pressure wet abrasive such as Hodge-Clemco /TORC system.
- [Cleaning the existing and retained Stucco window surrounds on facades facing Pentonville Road and Grays Inn Road.]
Stucco window surrounds which are to be retained shall be cleaned using DOFF or equal and approved hot wash system. In areas where heavier soiling is encountered it is recommended to paint strip the stucco mortar. Sub-contractor to identify areas of paint to test removal method. Removal of paint to proceed only after test sample has been approved by architect.
- [In-situ cleaning of bricks to be reclaimed.
All brickwork to the rear of the Lighthouse block, to the side and rear of 283 Pentonville Road and existing chimney stacks are heavily soiled. These bricks shall be reused as per the Latitude [41.1] series drawings. These bricks shall be cleaned in-situ prior to careful removal and storage by specialist masonry conservation sub-contractor. Cleaning method to be a low pressure wet abrasive using the Hodge-Clemco system] .
- An agreed area of wall, 1.5m x 1.5m, is to be cleaned and approved by architect before cleaning works can commence.

120A RELATED REPAIR AND REMEDIAL WORKS

- Work to be carried out before cleaning work: Pointing to cracks and joints in masonry, as section C41.
Any plant growth to be carefully removed from brick surface. Treatment of roots as necessary to Sub-Contractors proposals.

142 REMOVAL OF FITTINGS

- Timing: Before commencement of cleaning work.
- Disturbance to surfaces: Minimize.
- Items for disposal:
 - Metal clips;
 - Vine eyes;
 - Scaffolding eyes and
 - As noted on Latitude demolition drawing series 10.1 and Latitude proposed elevations 15.2 series and Latitude masonry repair drawings (21.5)01.
- Items to be kept for reuse: TBA.

160 PROTECTION

- Surfaces not designated for cleaning: Prevent damage, including marking and staining.
- Openings: Prevent ingress of water, cleaning agents and detritus.
 - Vents and grilles: Seek instructions before sealing up.
- Temporary mechanical fastenings:
 - In masonry: Locate in joints.
 - In other surfaces: Seek instructions.
- Additional protection: Submit proposals .

175 CONTROL AND DISPOSAL OF WASH WATER AND DETRITUS

- Disposal: Safely. Obtain approvals from relevant Authority.
- Control of wash water: Collect and divert to prevent ingress and damage to building fabric and adjacent areas.
- Above and below ground drainage systems: Keep free from detritus and maintain normal operation.

180 COLD WEATHER

- Cleaning procedures using water: Do not use when air temperature is at or below 5°C. Protect damp surfaces from frost.
- Chemical cleaning agents: Do not use when surface temperatures are below those recommended by manufacturer.

190 CLEANING GENERALLY

- Operatives: Appropriately trained and experienced for each type of cleaning work.
 - Evidence of training: Submit on request.
- Control of cleaning: Confine cleaning processes and materials to designated areas. Prevent wind drift.
- Detritus: Remove regularly. Dispose of safely.
- Monitoring: Frequently check results of cleaning compared to approved trial samples. If results established by trials are not achieved, seek instructions.
- Modifications to cleaning methods and materials: Seek instructions.

215 RECORD OF CLEANING WORKS

- Written report: Record cleaning methods and procedures used for each type of surface and deposit.
 - Content: Relevant attributes of cleaning methods used including:
 - Equipment and settings.
 - Dwell times.
 - Number of applications.
 - Ambient temperatures.
- Additional documentation: Survey before cleaning: Photogrammetric drawings of each elevation.
- Submission: At completion of cleaning works.

230 TRIAL SAMPLES

- Trial sample reference: TS 001.
 - Surface: Clay brick and Sandstone.
 - Location/ Size: Discrete location on Pentonville Road elevation to be agreed with Latitude and Contractor. Area to be 1000mm x 1000mm.
 - Type of soiling:
 - Atmospheric soiling;
 - Biological growths;
 - Bird droppings;
 - Bitumen;
 - Efflorescence; and
 - Paint.
 - Cleaning methods: DOFF steam cleaning and Neolith Chemical cleaning. Sub-contractor to submit proposals.
- Records: Maintain written records for each trial area, including cleaning methods and conditions, to enable replication of results elsewhere.

230A TRIAL SAMPLE 1

- Trial sample reference: TS 001.
 - Surface: Stucco.
 - Location/ Size: Heavily soiled areas in less exposed locations to stucco window surrounds to be agreed with Latitude and Contractor. Area to be agreed.
 - Type of soiling:
 - Atmospheric soiling;
 - Biological growths;
 - Bird droppings;
 - Bitumen;
 - Efflorescence; and
 - Paint.
 - Cleaning methods: DOFF steam cleaning. Sub-contractor to submit proposals.
- Records: Maintain written records for each trial area, including cleaning methods and conditions, to enable replication of results elsewhere.

230B TRIAL SAMPLE 2

- Trial sample reference: TS 002.
 - Surface: Clay brickwork.
 - Location/ Size: Brickwork to the side and rear of 283 Pentonville Road and chosen existing chimney stack. Areas to be agreed with Latitude and Contractor.
 - Type of soiling:
 - Atmospheric soiling;
 - Biological growths;
 - Bird droppings;
 - Bitumen;
 - Efflorescence; and
 - Paint.
 - Cleaning methods: TORC or Hodge-Clemco low-pressure wet abrasive systems. Sub-contractor to submit proposals.
- Records: Maintain written records for each trial area, including cleaning methods and conditions, to enable replication of results elsewhere.

230C TRIAL SAMPLE 3

- Trial sample reference: TS 003.
 - Surface: Clay brick.
 - Location/ Size: Discrete location on Pentonville Road elevation to be agreed with Latitude and Contractor. Area to be 1000mm x 1000mm.
 - Type of soiling:
 - Atmospheric soiling;
 - Biological growths;
 - Bird droppings;
 - Bitumen;
 - Efflorescence; and
 - Paint.
 - Cleaning methods: DOFF steam cleaning and Neolith Chemical cleaning. Sub-contractor to submit proposals.
- Records: Maintain written records for each trial area, including cleaning methods and conditions, to enable replication of results elsewhere.

PRODUCTS/ EQUIPMENT

300 COMPATIBILITY OF CHEMICAL PRODUCTS

- Products: Compatible and produced by the same manufacturer.

312 SURFACE BIOCIDES

- Types: Registered by the Health and Safety Executive (HSE) and listed on the HSE website under non-agricultural pesticides.
- Compatibility with surface: Free from staining or other harmful effects.

322 ABRASIVE CLEANING EQUIPMENT

- Manufacturer/ Supplier: Contractor's choice.
 - Product reference: Contractor's choice.
- Nozzle types: Contractor's choice.
- Abrasives: Subject to site trials.

332 WATER SPRAY (MOUNTED NOZZLES)

- Equipment:
 - Spray/ Nozzle types:
 - Atomizing (nebulous) combined with a soft bristle brush;
 - Subject to site trials; and
 - Submit proposals .
 - Nozzles: Position and direction adjustable, relative to surfaces and profiles.
 - Controls: Electronic moisture sensors and/ or a Time clock .

352 STEAM CLEANING EQUIPMENT

- Manufacturer: Submit proposals .
 - Product reference: Submit proposals .

362 CHEMICAL AGENTS FOR PAINT REMOVAL

- Manufacturer: Contractor's choice.
 - Product reference: Submit proposals.

APPLICATION

412 REMOVAL OF LOOSELY ADHERED DEPOSITS

- Timing: Before commencement of other cleaning methods.
- Surfaces: Prevent damage, including abrasion.

- 432 TOOLING
- Tooling of surfaces: Not permitted.
- 442 ABRASIVE BLOCKS
- Types: Suitable grades of carborundum or gritstone.
 - Application: Lubricate with water. Remove detritus.
 - Abrasive power tools: Prohibited.
- 452 ABRASIVES CLEANING
- Surfaces: Minimize abrasion.
 - Ingrained deposits: Seek instructions.
 - Equipment settings (including nozzle type and distance from surface): Adjust regularly to achieve optimum cleaning performance for each surface.
 - Detritus: Remove with clean water.
- 462 WATER SPRAY CLEANING (MOUNTED NOZZLES)
- Surfaces: Minimize water run-off. Prevent damage.
 - Adjustment of washing cycle and nozzle positions: Regularly to achieve optimum cleaning performance.
- 482 STEAM CLEANING
- Surfaces: Prevent damage, including abrasion.
 - Equipment settings (including nozzle type and distance from surface): Adjust regularly to achieve optimum cleaning performance for each surface.
- 500 CHEMICAL CLEANING
- Surfaces: Prevent damage, including discolouration, bleaching and efflorescence.
 - Product variables (including concentrations, dwell times and number of applications): Adjust for each surface to achieve optimum cleaning performance.
 - Application: To wetted surfaces.
 - Drying out: Prevent unless recommended otherwise by cleaning product manufacturer.
 - Removal of chemicals and neutralization: As recommended by product manufacturer, including rinsing with clean water.
 - Additional treatment: Where water rinsing is insufficient to neutralize surface, apply compatible neutralizing agent.
 - Surfaces and joints: Minimize absorption of chemicals. Prevent damage, including abrasion.