

NEC4

Term Maintenance Contract

Scope S2200 Client's service specification and drawings

**Series 2400 – Brickwork, Blockwork and Stonework
DN581359**

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2470AR: Preparation for Pointing and Grouting

- 1) Surfaces to be pointed shall be thoroughly cleaned and all vegetation removed to the satisfaction of the *Service Manager*. The method used shall be capable of dislodging mortar, heavy encrustations, dirt, organic matter and vegetation.
- 2) Unless otherwise directed by the *Service Manager*, joints in masonry to be pointed which are not already devoid of mortar shall be taken out to a depth of 30mm below the face of the masonry adjacent to the joint by mechanically powered tools, mortar picks and/or power discs or similar approved tools. Care shall be taken not to damage the stone and brickwork. Masonry repairs, which are then to be pointed to give a uniform overall appearance, shall have the joint recessed 30mm during building. In the case of gun-injected mortar the joint shall be taken out to a depth of 20mm.
- 3) All material removed during cleaning processes shall be collected and disposed of in accordance with Series 600. Precautions shall be taken to ensure that, when working above a river or stream, the flow is not impeded and that debris is not conveyed in the flow and discharged downstream of the works.
- 4) Where in the opinion of the *Service Manager* masonry requires restoration before pointing is carried out, masonry shall be cut out, replaced and/or repaired as directed by the *Service Manager*.
- 5) Adequate notice shall be given to the *Service Manager* to enable prepared surfaces to be inspected. No renovation works shall proceed until such surfaces have been approved by the *Service Manager*.
- 6) The sequence of working shall be such that the integrity of the structure is maintained at all times.
- 7) Unless otherwise stated workmanship for the use of masonry will be in accordance with BS 5628-3:2005.

2471AR: Pointing

- 1) Pointing of joints in stonework or brickwork shall be carried out in the following manner:-
 - i. Joints taken out to 30mm depth in accordance with Clause 2470AR and joints greater than 30mm in depth shall be filled by hand pointing to Clause 2472AR.
 - ii. Where specified in the Package Order/Task Order (as applicable) or instructed by the *Service Manager*, brickwork joints shall be filled by gun-injected mortar

in accordance with Clause 2473AR

2) Trial Panels

- i. Before pointing or using a gun-injected mortar on any structure the *Contractor* shall carry out trials by pointing an area not less than 1 square metre to enable the *Service Manager* to approve the mix and standard of finish for each structure

2472AR: Hand Pointing

- 1) Hand pointing shall obtain total penetration into and completely fill the joint to be pointed. Care should be taken to ensure that mortar is not placed upon or spread onto adjoining masonry surfaces.
- 2) The mix to be used for hand pointing shall comply with (MCDHW) Clause 2404, 2405SR or (MCDHW) 2417 as appropriate and as specified in the Package Order/Task Order (as applicable).
- 3) The finish attained shall be that specified in (MCDHW) Clauses 2412 for brickwork and Clause 2413SR for stonework and as specified in the Package Order/Task Order (as applicable).
- 4) The finish of hand pointing in brickwork and stonework shall be in accordance with the Package Order/Task Order (as applicable). The mix to be used in hand pointing shall comply with the Package Order/Task Order (as applicable).

2473AR: Gun-Injected pointing

- 1) Gun-injected pointing of brickwork shall be carried out using an approved material and process.
- 2) The type and method of installation shall be as follows:
 - i. All pre-packed gun injection mortar to be installed, cured and finished strictly in accordance with manufactures guidelines, method statements and as agreed with the *Service Manager*.
 - ii. The colour of any gun-injected mortar is to be as specified in the Package Order/Task Order (as applicable) and agreed with the *Service Manager*.

2474AR: Pointing Below Water Level

- 1) Where permitted by the *Service Manager* pointing below water level may be carried

out by hand using an approved quick set mortar. The finish attained shall be that specified in clauses 2470AR and 2471AR.

2475AR: Grouting

- 2) Grouting may only be carried out in any particular section of the structure when pointing in that same section has been completed. Grouting shall be carried out via holes drilled through the full thickness of masonry. The position, size and grouting sequence of holes shall be agreed with the *Service Manager*.
- 3) The grouting Plant for void grouting shall be capable of grouting pressures up to 0.7 N/mm²
- 4) Temporary hardwood plugs shall be inserted into grout holes after grouting until such time it is evident to the *Service Manager* that grouting has been effective. Grout holes shall be finished by pointing with a 2:1 sand: cement mortar or otherwise suitably finished as detailed in the Package Order/Task Order (as applicable) to be compatible with the surrounding mortar.
- 5) The quantities of grout pumped on each individual section of renovation work shall be recorded and submitted to the *Service Manager* on a daily basis.
- 6) Unless otherwise agreed by the *Service Manager*, the mix to be used in grouting shall be a PFA/Portland cement mix with a minimum 28 day compressive strength of 5 N/mm².

2476AR: Brick and Stone on Existing Structures

- 1) Where required on existing structures, brick and stone shall be of a type and appearance to match the original construction and shall require the approval of the *Service Manager* before work commences.

2477AR: Taking Down Existing Brickwork and Stonework

- 2) In taking down existing brickwork and stonework, every care shall be taken to preserve the arises.
- 3) Bricks and stones suitable for re-use shall be cleaned of existing mortar and stored.
- 4) The method employed in taking down the brickwork or stonework shall not in any way affect the structural integrity of the structure

2401SR: Cement

- 1) Cement shall be one of the following:
 - i. Portland cement complying with BS EN 197-1 [BS 12];
 - ii. Masonry cement conforming to BS EN 413-1, for example: "Wallcrete" masonry cement as manufactured by Blue Circle Cement Co or equivalent;
 - iii. Sulphate-resisting Portland cement complying with BS 4027 where instructed in the Package Order/Task Order (as applicable).

2402SR: Aggregates

- 1) Fine aggregate shall comply with BS EN 12620, Grade 0/2 Category 3.

2405SR: Lime Mortar

- 1) Lime mortar mixes and strengths are generally to be determined on a site specific basis, using hydrated lime complying with BS EN 459-1 or Natural Hydraulic Lime grade NHL 2, NHL 3.5 or NHL 5 as instructed in the Package Order/Task Order (as applicable).

2413SR: Stonework

General

- 1) Except for dry rubble walling, all joints shall be kept to a minimum but sufficiently thick to prevent stone-to-stone contact and shall be completely filled with mortar.
- 2) Unless otherwise instructed by the *Service Manager*, the joint shall be recessed sufficiently to provide a clear outline of each stone. The depth of the recess shall be between 8mm and 15mm depending on the average size of the stone; the smaller the stone the shallower the recess. The profile of the finished pointing within the recess shall have a flat surface to give a clearly defined line between the stone and the pointing. After the mortar has reached its initial set it shall be brushed to remove the laitance and expose the aggregate.
- 3) On completion the face of the stone shall be clean and free from mortar and staining of any kind.