

Specification and Schedule of Works For Repairs of West Boundary wall, Bruce Castle

West wall: Bay A only

1.0 General Description of Works to West Boundary Wall

- 1.1 The proposals are to repair and rebuild the damaged West Boundary Wall, which is currently starting to collapse in parts. This will include the replacement of brickwork where the existing bricks have been damaged or broken, and the removal of cement render to the internal face of the wall.

As much of the existing brickwork, where possible, will be retained. Where it is necessary to dismantle the brickwork, the bricks will be salvaged and reused in the rebuilding of the wall. The wall will be rebuilt to bond and pattern to match existing with salvaged and new bricks and to the existing height of the wall.

The likely scope of rebuilding and repointing of the wall are shown on the drawings and describe below. The assessment shown on the drawings is based upon the initial investigation works, visual and plumb surveys.

General Overview of Works and outline proposed methodology

The repair of the wall will be carried out in an agreed sequence.

- record west face of wall
- remove render to East side of wall in hit and miss bays
- take down top of wall in sections
- repair brickwork to east side competing each bay at time
- mark up west side of wall to be dismantled
- rebuild west side of wall in small areas, bonding into core and east face of wall
- rebuild top of wall
- repoint wall in sections to both faces
- repeat above to missed sections of wall to complete repair

This outline method is expanded upon below in item 3.2.

The proposed repair includes the removal of the cement render to the east face of the wall: this is a critical intervention to stabilizing the wall. Once the render is removed, the revealed brickwork will be recorded assessed and repaired using salvaged and imported new bricks to leave as a brick face.

The removal of the cement render to the wall will be carried out using hand tools. From our inspection of the wall, some areas of the render have cracked and de-bonded and tapping tests suggest that some areas of the render are hollow and have de-bonded. Areas of render that has de-bonded, that account for approx. 35% of the render surface, The investigation and sample area of render removal demonstrate that removal of the cement render will have a varying effect on the brickwork forming the wall. Therefore, the extent of the brick repairs to this face will remain uncertain at the outset. The aim is to retain as much historic brickwork as possible and salvage, wherever possible, historic fabric, to leave a coherent wall face.

The cement render will be removed a bay at a time in a hit and miss sequence

Once the render has been removed from an area, a judgment will be made, and broken or heavily damaged bricks will be marked before being individually drilled, cut out, removed and replaced with

salvaged or imported bricks laid in bond pattern to match the existing. On the completion of the repair of an area of brickwork, the section of the wall will be raked out and repointed with lime mortar with a flush stippled finish to approved samples before moving on to other sections

The repair process of the inner east face of the wall can be summarized as follows:

- remove the cement render one bay at time in a hit and miss pattern, using hand tools only
- leave brick piers in place
- remove header coping and take down top course of brickwork and salvage as many bricks as possible
- Clean all mortar from bricks and stack ready for reuse
- Clean all cement residual from brick face
- inspect and mark up brickwork where render has been removed
- cut out individual bricks or small patches of brickwork
- replace individual bricks to original bond pattern to match existing.
- complete repair of brickwork to one bay and rebuild top course as removed using salvage and imported new bricks
- rake out and repoint brickwork using a lime mortar with flush stippled finish to agreed sample.

West face of the wall

This does not resolve the bulging to the outer west face of the wall and the impact of the work to each section of the east face of the wall should be considered with the agreed works to the west face .

The repair of the west face of the wall requires the removal and dismantling of excessively bulged areas of the wall and rebuilding part of the west face wall in sections. This will inevitably include rebuilding some sections of the wall from ground level up, although the full extent of the rebuild is difficult to closely define before works starts.

The methodology outline below has been designed to minimize the loss of fabric and ensure that as much as possible of the wall is retained.

1.2 Methodology

The following methodology has been derived to salvage and retain as much of the historic fabric of the wall as possible. The contractor should allow for working in a fragmented way as described below and agreed with the architect. The contractor will be expected to use the principles of the methodology as set out below to inform and derive their own working method to be provided in writing and agreed with architect before works starts:

Record West Face of Wall

- A The contractor will make a full record of the west face of wall bond and pattern using photographs drawings and gauge rods. Record of the wall bond pattern on drawings and producing a gauge rods for each section of wall to be dismantled marking all bricks and joints.
- B The contract will inspect the west face of the wall with the architect to establish and agree the anticipate full scope of works. The contractor will make up drawing recording the agreed scope of work and share this record with the architect before works starts

East Face of Wall

- D Remove cement render using hand tools only in alternating bays, and hit and miss pattern leaving piers in position.
- E Clean and remove cement residual from brickwork face
- F Record revealed brickwork where render removed and mark up repairs with the architect to the brick east face of wall.
- G Take down top of wall in short lengths including brick on edge coping, salvaging bricks for reuse where possible.

- H Repair consolidate and rebuild internal east face of brickwork in bays using new and salvaged bricks. using short timber props and wedges to hold adjacent bricks in places
- I Repoint east face of wall in sections

Works to West Face of Wall

- J Identify areas of brickwork to west face of wall to be taken down in short sections and related to works to east face of wall carefully take down areas of bowing and dislodged brickwork to west face of wall as agreed with architect.
- H Rebuild west face of wall to line, using salvaged and new bricks to remove bulges and bond with headers to east face of wall and wall core.
Areas of rebuilt brickwork to west face will be tied to the east wall using header bricks and stainless-steel ties. The core of wall will be consolidated and filled completely with lime mortar and brick slips.
- K Leave rebuilt areas of west wall toothed to be integrated with next section of wall repair.
- L Rebuild top courses of brickwork and coping to line, retaining position of 'pigs' and cut bricks to west face of wall to be repeated (note: brickwork rebuilt to line not level).
- M Repoint wall in lime mortar in sections

Allow here any additional cost associated with providing a contractors methodology statement to be agreed with the architect and amended accordingly

General Specification and method of working for all Brickwork

All brickwork repairs, the following practices should be adopted:

- a. The workmanship is to be in accordance with CP 121 and BS 7319
- b. External facing bricks are to be handmade bricks with size, colour and surface texture to match existing to the approval of the architect and each brick replacement individually selected for colour and size match
- c. The Main Contractor should allow for selecting facings or bricks for fair face work
- d. All bricks are to be laid frog up if applicable. Double frog bricks with deeper frog uppermost and fill all frogs with mortar and in dry weather are to be well soaked before being used and the tops of all walls must be well wetted before the work is recommenced.
- e. The contractor's attention is drawn to the fact that the fair face brickwork will be required to be executed to the highest standard of workmanship with particular regard to the cutting of brickwork.
- f. Bricks are to be moistened, but not saturated, before laying using a fine spray or wet brush before applying the mortar in order to achieve a good bond between mortar and bricks, including wetting tops of walls before work is recommenced. Newly laid brickwork is to be kept moist for a minimum of 7 days by the use of sacking or polyurethane as necessary
- g. The brickwork is to be laid in Flemish bond to match existing. All bricks are to be well buttered before being laid and joints are to be thoroughly filled and flushed up as the work proceeds.
- h. No brickwork is to be carried out during frost, unless specifically directed by the architect. All brickwork laid during the day must, in all seasons liable to frost, be properly covered up at night with felt, sacking, boards or other non-conducting material. Where necessary, the bricks, water and sand for mortar shall be pre-heated to ensure a temperature of 5 degrees C minimum in the brickwork when laid. All new brickwork shall be suitably protected for a period of 7 days, as required, and the temperature of the brickwork shall not be allowed to fall below freezing point.
- i. Faced brickwork must be kept perfectly clean and scaffold boards are to be turned back during heavy rain and at night to avoid splashing.
- j. The facing bricks are to be raked out and at a later stage pointed in gauged mortar to match existing.
- k. Fair-faced brickwork should match throughout the works and where bricks are of varying colours and/or textures these various colours and/or textures must be evenly distributed throughout the Works. The work must be kept perfectly clean and cleaned down on completion.

- l. Fair faced brickwork shall be bedded and pointed in mortar in accordance with the pointing schedule to the architect's approval, and care is to be taken to ensure that mortar staining does not occur beyond the of the joint.
- m. Bonding the new facing work to existing in the same plane shall be toothed bonded together every course to give a continuous appearance.
- n. The wording "properly bonded in to existing" described with brickwork items in the Works on Site sections means: At vertical junctions between new and existing brickwork, the new brickwork shall be properly cut, toothed and bonded into the existing work every alternative course and pinned up over the underside of existing brickwork with gauged mortar including where described any of in filling to curved soffits of existing openings.
- o. Cutting out of individual brick should be carefully executed using hand tools only. Ensuring that no damage is done to the adjoining brick edges. Where necessary damage bricks to be removed can be drilled out first and residue mortar and brick carefully cut into cavity using hand chisel.
- p. Bricks shall be handled, laid and stored in accordance with CP122
- q. Allow for the supplying samples of any proposed imported second hand salvaged bricks for the architect's approval.
- r. The external west face of the wall has several 'pigs' in the coursing which are difficult to reproduce when rebuilding these will be carefully recorded and the brickwork will be rebuilt to line not level. All brickwork to be rebuilt to bond to match existing wall and to existing height.
- s. The contractor is to annotate his own drawing recording all brick bonding to any area of the area to be dismantled. This should be agreed and shown to architect before any brickwork is removed.

1.3 Recording West Face of Wall (See drawings SU Sk06 and sk07)

The contractor will make a full record of the west face of wall bond and pattern using photographs drawings and gauge rods. The record will include wall bond pattern, coursing of brickwork to identify all bricks and joints. It will be in the form of drawings gauge rods and detailed photographs for each section of wall to be dismantled. Copies of the record material produced to be agreed with and given to the architect prior to dismantling work to any section.

1.4 The contract will inspect the west face of the wall with the architect to establish and agree the anticipate the full scope of works. The contractor will make up drawing recording the agreed scope of work and share this record with the architect before works starts

1.5 Record Plaques to East face of wall

The contract will inspect the three number plaques to east face of the wall with the architect to establish and agree their removal and temporary storage. The contractor will make a condition survey and photographic record of each of the three plaques. The condition survey to be agreed with and copied to the architect before works starts.

1.6 Removal of stone plaques (See drawing Su05)

The contractor will agree with the architect a method for safely removing the three stone plaques from the east face of the boundary wall

The stone plaques are as follows

- P1 approx. 900 wide 1.5 high This plaque is mounted on a metal shelf channel and held with 2 no metal fixing at top
- P2 approx. 1.1 dia. This circular plaque is a coat of arms. It is mounted on a brick plinth and held in position with 4 number metal fixing
- P3 approx. 900 wide x 750 high. This plaque This plaque is mounted on a metal shelf channel and held with 2 no metal fixing at top

The removal of the plaques will involve cutting out all metal 8 No fixing embedded in the wall leaving in place the metal shelf channel to plaque p1 and P3 and the brick plinth to P2. Allow for all temporary timber propping to hold plaques in place until they are ready to be removed. Note: the plaques are likely to be bedded onto a rendered surface.

Carefully take down each plaque and set aside for storage

- 1.7 Allow here for carefully wrapping each plaque in a breathable protection fleece. Store each plaque in a purpose made robust timber boxes comprising of 12mm plywood top and bottom with a 50x75 frame to protect all surfaces and edges. Provide pallets for each stone plaque and store on site in a location agreed with architects
- 1.8 The metal fixing associated with each plaque should be labeled, cleaned of all rust and treated with 2 coats of red oxide primer and set aside for reuse.
- 1.9 Allow for helping museum staff to clear site including planters and pots approx.10 number to storage area in the large Bruce Castle museum site. The extent and nature of this work should be checked on site.

Works to BAY A

- 1.10 Remove cement render east face Bay A
The east face of the wall will be repaired in sections starting from the south corner bay
Cement render removal to Bay A from south wall to pier 01
 - A Temporary work: The contractor is to design and providing temporary timber propping to secure west face and avoid further collapse of wall during the works. Typically the propping will be formed from scaffold boards against wall and raking timber struts and framing to west side of wall at approx. 1 m centers approx. 2M high to be put and fixed in place prior to caring out render removal to east face of wall. Propping and temporary works to be modified moved along wall after completion and consolidation of the works of each bay.
 - B Remove cement render to bay A: Between south wall and brick pier 01
Render to be carefully removed using hand tools only to agreed method .
Approx. Total area 7.5sqM
 - C Remove cement particles: Once the render surface has been removed go over area to remove small particles of cement and from brickwork face. Allow for removing small cement particles using the chisel surface of a brick hammer and a brick chisel to chip and pry away the render particles with repeated blows at a low angle.
 - D Clean brickwork to remove all cement residual: Scrub with a hand held wire brush. Apply hydrochloric acid working on resistant area in small patches applied using a paint brush and scrub again with a wire brush to remove residual coatings of cement coating and wash/rinse surfaces well before moving on to new area
 - E Doff clean brickwork : On completion clean off all brickwork using a Doff steam cleaning system allow cleaning to area of bay and pier 1 approx. 8.0sqM all to agreed sample area
- 1.11 Repair brickwork to Eastern Face of Wall: Bay A
Note: See detailed description and specification of all brickwork repairs described in item above
 - A Record and mark up repair
The contractor is to make his own drawing and record of revealed brickwork noting bond pattern coursing and all brick sizes where render removed to bay A. The contractor will mark up repairs to the brick east face of wall with the architect and record on their own drawings and photos the agreed brick repairs and replacement before works starts.
 - B Take down top of wall
Take down top of wall to line agreed with architect assume approx. 7 courses through full thickness of wall (approx. 330mm 1 ½ bricks wide) plus removing brick on edge coping including copping to piers. Allow approx. total length of bay A 3.25LinM (see item 1.13 below for rebuilding of top of the wall)
 - C Salvaged bricks

Allow for cleaning all mortar from as many salvaged bricks as possible and stack ready for reuse. (Assume 40% of bricks to areas dismantled to be salvaged)

D Brick Repairs Eastern Face of Wall

Cut out individual damaged bricks or bricks in small patches as agreed with architect and reform internal east face of brickwork in bay A using new bricks (client supplied) and salvaged bricks. Allow for careful choosing replacement brick to match brick removed and surrounding brickwork. Use short timber props and wedges to hold adjacent bricks in places. Cutting out of individual brick should be carefully executed using hand tools only. Ensuring that no damage is done to the adjoining brick edges. Where necessary damage bricks to be removed can be drilled out first and remaining mortar and brick carefully cut into cavity using hand chisel.

PROVISIONAL ITEM allow for replacing up to 200 individual bricks or bricks in small patches to Bay A

E Consolidate Core of Wall

Allow for consolidating the core of wall where revealed during brick face replacement and bonding east side of wall with west side of wall using headers bricks filling any void with mortar and brick bats (read in conjunction with west elevation item 1.12F)

F Brick Repairs to Piers on Eastern Face of Wall

Cut out individual damaged bricks or bricks in small patches to pier no1 as agreed with architect and piece in using new bricks (client supplied) and salvaged bricks. It should be noted that the piers are built in cement mortar Allow for careful choosing replacement brick to match brick removed and surrounding brickwork. Use short timber props and wedges to hold adjacent bricks in places. Cutting out of individual brick should be carefully executed using hand tools only. Ensuring that no damage is done to the adjoining brick edges. Where necessary damage bricks to be removed can be drilled out first and remaining mortar and brick carefully cut into cavity using hand chisel.

PROVISIONAL ITEM allow for replacing up to 5 individual bricks or bricks in small patches to pier no1

1.12 Repair brickwork to Western Face of Wall: Bay A

A Record and mark up repair

The contractor is to make his own drawing and record of revealed brickwork noting bond pattern coursing of the brick work to bay A. The contractor will mark up repairs to the brick and areas to be taken down to west face of wall with the architect and record on their own drawings and photos the agreed brick repairs and replacement before works starts.

B Take down additional (to item 3.11 B) brickwork to west face only

Take down and rebuild additional (to item 3.11B) top of wall to west face only

Take down bulging west face of wall to line agreed with architect assume ½ brick thickness of wall (approx. 150mm ½ bricks wide) and rebuild to line.

Allow 1 no approx. total length 1.0LinM (approx. 5 courses)

Allow 1 no approx. total length 1.5LinM (approx. 5 courses)

(Note see item 3.13 below for rebuilding of top 7 courses and copping to top of the wall)

Allow for removing any roots or vegetation and treating exposed surface of core of wall with herbicide.

Rebuild area of wall dismantled back to line using salvaged and new bricks (client supplied) Bricks selected to match surrounded area to match bond and pattern and all laid in hot lime mortar to agreed sample. Leaving brick work tooth to northern edge to bond with brick repairs to bay B

C Careful take down facing skin of brickwork (½ Brick) to external south corner of wall assume full height approx. 2.0m high (25 courses), 450mm long (2 bricks) including along south elevation 450mm long (2 bricks)

Allow for rebuilding in salvage and new bricks (client supplied) bonded to core of wall and rebuilding to existing bond pattern. All laid in hot lime mortar to agreed sample Leaving south elevation toothed for further facing replacement (south wall works described below)

D Salvaging bricks

Allow for cleaning all mortar from as many salvaged bricks as possible and stack ready for reuse. (Assume 40% of bricks to areas dismantled to be salvaged)

E Brick Repairs west Face of Wall

Cut out individual damaged bricks or bricks in small patches as agreed with architect and reform internal east face of brickwork in bay A using new (client supplied) and salvaged bricks. Allow for careful choosing replacement brick to match brick removed and surrounding brickwork. Use short timber props and wedges to hold adjacent bricks in places. Cutting out of individual brick should be carefully executed using hand tools only. Ensuring that no damage is done to the adjoining brick edges. Where necessary damaged bricks to be removed can be drilled out first and remaining mortar and brick carefully cut into cavity using hand chisel.

PROVISIONAL ITEM allow for replacing up to 50 individual bricks or bricks in small patches to Bay A

F Consolidate Core of Wall

Allow for consolidating the core of wall where revealed during brick face replacement and bonding west side of wall with east using headers bricks. Filling any void to core of wall with mortar and brick bats (read in conjunction with east elevation item 3.11E)

G On completion of brick repairs clean off all brickwork using a Doff steam cleaning system allow cleaning to area of bay and pier 1 approx. 8.0sqM all to agreed sample area

1.13 Rebuild top of wall and copping bay A

A Prepare top of wall: Careful prepare and consolidate top of wall ready for rebuilding brickwork and forming copping to bay A. describe below Treat top of wall with herbicide before starting work

B Rebuild top of wall: Allow for rebuilding top 7no. courses of wall 1 ½ brick (330mm) thick as previously dismantled back to line. Bricks to be salvaged and new bricks (client supplied) Bricks selected to match surrounded area of brickwork, to match bond and pattern to west face. All bricks laid to line and match record of existing brickwork. Bricks laid in hot lime mortar to agreed sample. Leave brick work tooth to northern edge to bond with brick repairs to bay B and raked back for pointing with rest of elevation

Approx. total length of wall to be rebuilt 2.75 Lin M

Allow for bonding rebuilt brickwork with south wall and pier 1

C Treat top of rebuilt brickwork to bay A with two coats of RIW: RIW applied with brush to form damp proof course approx. Area approx. 330 wide x 2.75 M long

D Rebuild Copping: Copping 1 ½ brick wide brick on edge copping, laid to line using new bricks (supplied by client). Approx. Total 2.75M linM. Including copping to piers. All brickwork to be correctly bonded using alternating full and cut bricks and laid in 3.5NHL lime mortar to agreed sample. Note copping to bonded into south wall copping and with copping to brick pier no1.

1.14 Repointing Bay A

A Pointing to east elevation of bay A

Rake out all brickwork to bay A between south wall and pier 1, Existing mortar should be cut out using a plugging chisel and hand tools only to a minimum depth of 30mm.

Rebuild area of brickwork should be left raked back for new pointing. Leave all bedding and perpend joints square cut and recess to receive new pointing all as approved sample. Repointed using 'hot lime' mortar in a mix to match existing and agreed with architect. Pointing to have tamped and stipple finish to match existing and to sample agreed with architect.

Total area of pointing for east face of wall bay A approx. 7.5sqM

B Pointing to pier no1

Note: the brickwork to pier no1 has been laid in a cement mortar

There is a straight vertical joint between the pier and the wall. The joint either side of the pier is approx. 30 mm wide. The joint should be carefully raked back minimum of 40mm and any voids or loose material removed. Any voids should be cleaned and washed out and rammed filled with mortar or brick or clay tile slips to consolidate wall before repointing the vertical joint with NHL3 lime mortar to approved sample

Approx. total length 5.6 LinM of vertical joint either side of pier no1

C Cement mortar repointing

Cut out loose cement mortar to an agreed methodology and repoint pier in small patches in cement mortar to match existing in mortar mix and pointing sample agreed with architect sample.

Allow 0.5 sqM applied in up to 3 patches

PROVISIONAL ITEM

D Repointing to West elevation

Rake out areas of brickwork to west face of bay as agreed and marked up with architect. Existing mortar should be cut out using a plugging chisel and hand tools only to a minimum depth of 30mm. The bedding joint repointing should extend at least 1 brick beyond the last perpendicular of the agreed area. Rebuilt areas of brickwork should be left raked back for new pointing. Leave all bedding and perpendicular joints square cut and recess to receive new pointing all as approved sample. Repointed using 'hot lime' mortar in a mix to match existing and agreed with architect. Pointing to have tamped and stipple finish to match existing and to sample agreed with architect.

Pointing for west face of wall bay A, between south wall and CL pier no1

Allow total area. 9.0sqM

1.15 Bricks for works

Rebuilt facing brickwork will be bonded to core of wall using new and salvaged brick to match colour, texture and size of original brick. All New bricks will be handmade bricks produced by Bulmer Brick and Tile and will be supplied by the client free of charge

All new facing bricks are hand made to match existing in size colour and texture. New bricks are from Bulmer Brick and Tile and on approx..18 week procurement time scale from order. The client has pre-ordered and will supply free of charge and initial 5000 bricks from Bulmer Brick and Tile. The contractor will allow for all coordination of delivery of these brick and allow for identifying as soon as possible all additional and final quantity of bricks required to complete the work described in SOW Section 3 and Section 4. The contractor will manage and coordinate with Bulmer Brick and Tile the supply of bricks and inform the architect in good time of any additional quantity of bricks required and timing of brick delivery to complete the works to the agreed programme.

The contractor will manage the even mixing of all new bricks with salvaged existing bricks in all areas of rebuilding.

The contractor is to allow here all cost for dealing with client's brick supplier

1.16 Repointing Sample

Repointing to brickwork, the following practices should be adopted:

- a. Joints to be pointed are to be fully cleaned out to a minimum depth of 25mm to leave a clean square face at the back of the joint
- b. Where existing cement pointing is to be cut out this should be done with great care using appropriate tools to minimise damage to the arris of adjoining brickwork.
- c. The prepared joints are to be carefully cleaned out with a soft or stiff bristle brush and thoroughly flushed out with clean water but avoiding unnecessary saturation.
- d. Protect adjoining brick faces as necessary before pointing, ensure joint and surrounding brickwork is moist, rewetting as necessary. Mortar be pushed in to the joint from a board ironed in using a pointing iron using maximum possible pressure.
- e. The pointing is to be tamped back to a plane slightly recessed from the face of the bricks and clear of any damaged arrises. After initial set the surface of the pointing should be tamped with a fine brush to match the texture of the existing pointing. All to sample agreed with architect
- f. All pointing to be toned down in colour to match adjoining after finishing at a later stage with two dressings of soot and water as sample agreed with architect.
- g. Newly laid pointing is to be kept moist for a minimum of 7 days by the use of damp sacking and polyurethane as necessary.

Pointing to have tamped and stipple finish to match existing as agreed with architect.

The contractor is to allow here to execute 3 No sample panels each approx. 0.25SqM of pointing prior to commencing the main body of the work, complete with part toning down using soot and water mix for the architect's approval.

1.17 Allow for Additional Pointing of brickwork to west boundary wall.

A Pointing to existing cement mortar

Carefully cut out cement pointing by using a mini grinder or similar tool to cut center line of mortar and working from the outer edge of the pointing with a plugging chisel remove pointing. rake out existing lime mortar using a plugging chisel to a depth of approx. 30mm. Clean out joints and repoint 3.5NHL lime mortar to agreed sample with penny line finish in patches to agreed sample.

Patch re-pointing 0.10 sqM Allow 10Nno

Patch re-pointing 0.1- 0.25 sqM Allow 10

Patch re-pointing 0.25 - 0.5 sqM Allow 10 no

Patch re-pointing Up 0.5 0 -1sqM Allow 5 no

Repointing Over 1sqm Allow 10sqM

PROVISIONAL ITEM

B Pointing to existing lime mortar

Carefully rake out existing pointing where agreed and marked up on site by the architect. Allow for carefully cutting out lime mortar using a plugging chisel and repoint in areas of brickwork in patches with lime mortar to agreed sample.

Patch re-pointing 0.10 sqM Allow 10Nno

Patch re-pointing 0.1- 0.25 sqM Allow 10

Patch re-pointing 0.25 - 0.5 sqM Allow 10 no

Patch re-pointing Up 0.5 0 -1sqM x 5 no

Repointing Over 1sqm Allow 10sqM

PROVISIONAL ITEM

1.18 Cleaning Brickwork

Brickwork sample clean

Allow for carry out Stonehealth DOFF Super Heated Steam Cleaning Clean sample areas of brickwork each approx. 1.0SqM each sample using different intensity and after area has dried making a second clean over an area

Allow 4 samples areas

1.19 Sample Removal of paint from brickwork

Carry out sample area of paint remove to approximately 1sqM of painted wall using of Peelaway 7 paint remover and Peelaway 1 paint remover all applied to manufacture instruction al residue to be thoroughly wash off

Carry out sample area of cleaning of painted wall using Stonehealth TORC system.

Allow 4 sample areas

PROVISIONAL ITEM

1.20 Mortar samples

A Sand for Mortars

Sand for mortar is to be fine sharp river sand complying in all respects with BS 1200 and to be well graded from 3 mm down. That for use with fair face work is to be carefully chosen to ensure even colour and to match existing in colour and particle size and comprise of a mixture of locally obtained sands batch mixed to match existing to the architects approval

The contractor will supply minimum of 3no colours of fine builders sand

The contractor will supply sample of a suitable well washed sharp sand

B Hydraulic lime mortar :

The lime is to be hydraulic lime NHL3.5.

The lime used shall be of a brand approved with an unbroken seal fixed by the manufacturer. The packages shall be marked by the maker with their name, brand of lime and dated with the date of packaging. The lime shall be stored in such a manner that it is clear of the ground and is adequately protected from deterioration by moisture or other agencies.

All ingredients for mortar are to be measured in proper gauged boxes on a boarded platform.

Hydraulic lime mortars samples will be mix in the following approx. proportions

1 no HNL 3.5 lime

2 no builders sand

1 no sharp

The contractor will allow here for preparing 3 no samples of Hydraulic Lime Mortar

C Hot Lime Mortar

To lime is comprise of Hot Lime premixed mortar from Chaulkdown Conservation bagged

Hot Lime Mix No. 2 or 3

All ingredients for mortar are to be measured in proper gauged boxes on a boarded platform.

Hot lime mortars sample will be mix in the following approx. proportions

Mortar mix sample to be derived from :

6 no. x Chalk Down

2 no. x NHL 2.0

1 no. x Portland stone dust

1x sharp sand

The contractor will allow here for preparing 6 no samples of Hydraulic Lime Mortar