# DESIGN AND ACCESS STATEMENT

ALMSHOUSES
Flat 4
STYDD LANE
RIBCHESTER
LANCASHIRE
PR3 3YQ

FOR
YOUR HOUSING GROUP
ASTON EVENUE
RISLEY
WARRINGTON
WA3 6ZN

# Property overview:

**Location**:
The property is located within Stydd Lane which forms part of the Ribchester Conservation area and lies within the parish of Ribchester and Ribble Valley (District Authority). National grid reference SD 65382 35805

The building is set back from the main access road.
Stydd Lane is connected to the main highway leading off Blackburn Road, providing direct access into Ribchester. To the West of the Almshouses lies the church of St. Peter and St. Paul featuring an access road from Stydd Lane to a carpark which is shared by both the Almshouses residents and church congregation.

**Listing:**
The property is a grade II* listed building. List entry number 1308488

**Historic England Listing details**:
Almshouses, founded under the will of John Shireburne, who died in 1726. Sandstone ashlar and brick (the sides and rear pebbledashed) with stone slate roof. 2 storeys, unusual for alms houses. The central portion projects with a truncated shaped gable, topped by a cornice. On the 1st floor is an arcade of 3 semi-circular moulded arches with keystones, 2 unfluted Doric columns and 2 similar half columns as responds. The 2 outer openings have stone balustrades. This is approached by a central flight of 16 stone steps, curving outwards at the bottom and having a solid parapet with shaped coping. This is flanked on the ground floor by 2 open door surrounds with cyma mouldings. Behind the arcade on the 1st floor are 3 doors of 2 raised and fielded panels each. On the ground floor, visible through the outer stone doorways, are 3 similar doors and 2 sashed windows with glazing bars. On each side of this central portion is one bay of the main building, having sashed windows with glazing bars in plain stone surrounds of quarter-round section. The end gables have copings and chimney caps. At the rear are modern windows with plain reveals.

**Property configuration:**
The property has been converted we understand in the 1980s to form four number one-bedroom apartments.
Two apartments located to the ground floor and a further two on the first floor.
Apartment front doors are all located on the front elevation. First floor apartments are accessed by the central external staircase.

Flat four, the property that forms the basis of this application is located to the right hand side of the property at first floor level (viewed from front elevation).

Apartment 4 consists of a Livingroom to the front right-hand side, accessed directly from front door. Set behind Livingroom to the rear of the property is the bedroom. This is accessed direct from Livingroom.

To the front left hand side of the apartment is the kitchen, this is accessed from the Livingroom. The Bathroom is located to the rear left hand side and is accessed from the kitchen.

**Access to properties:**

The ground floor apartments have a small step, the first-floor apartments are accessed via external staircase with a small step at entrance door

**Overview, purpose of the application**:

Number 4 suffers from damp to external and some internal walls/ chimney breast.
The sole purpose of this application is to address the course of damp and rectify any damage to internal finishes.
Damp is hazardous to human health.
The works are therefor deemed as essential for safe guarding health and protecting the long-term use and viability of the building

**Approach to addressing defects**:

Historic buildings techniques differ from modern construction methods in that they use materials that promote breathability. The materials used are often softer than their modern counterparts and therefore it is essential to ensure that mortars and renders used are weaker and more flexible than the brick/ stone walls.
This tends to be achieved by using:
Lime based mortars
Lime based renders
Lime based plasters

## Existing ventilation strategy:

-The property benefits from a Vent Axia 6 inch Loft diffuser reference HO12 located within Livingroom ceiling. This appears to be a positive ventilation unit with pre warming facility although this would need to be verified ( we are currently awaiting feed back from Vent Axia) .
-It is noted that there are no additional extract fans to kitchens and bathrooms.
-It is also noted that there are two standard air bricks and an additional two larger ventilation grilles to gable wall at loft level. We assume this provides the required ventilation source for the ventilation unit.
-There is no air bricks within the rooms or trickle vents within windows. The windows are traditional sliding sash to front elevation and modern casement to rear. All windows are fitted with aluminium secondary glazing.
-The bathroom is an inner room for the purpose of positive ventilation unit design, there is no additional extract fan to this room.
-In modern buildings trickle ventilation would be fitted to windows, this is not possible to this property given installation of secondary glazing
-Inner wet rooms would normally be fitted with an additional extract fan.

**Proposed remedial works:**

Fit new extract fan within existing bathroom to be vented through an airbrick to protect the appearance of the property.

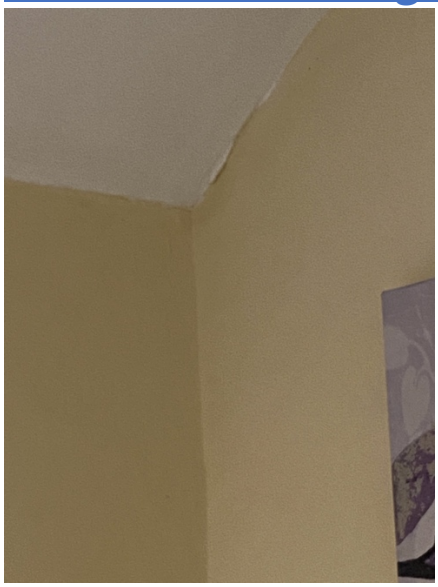
# Detailed review of defects:

Refer to main plans and elevations for location of each defect

# Rear bedroom:

**Decoration:**
**Walls:** painted yellow
**Ceilings:** Painted white

## Decoration staining area 1



**Photograph 1**: Rear bedroom gable/ external elevation at ceiling junction

-There is damp evident at rear/ right hand gable wall/ ceiling junction as marked in red on photograph above.

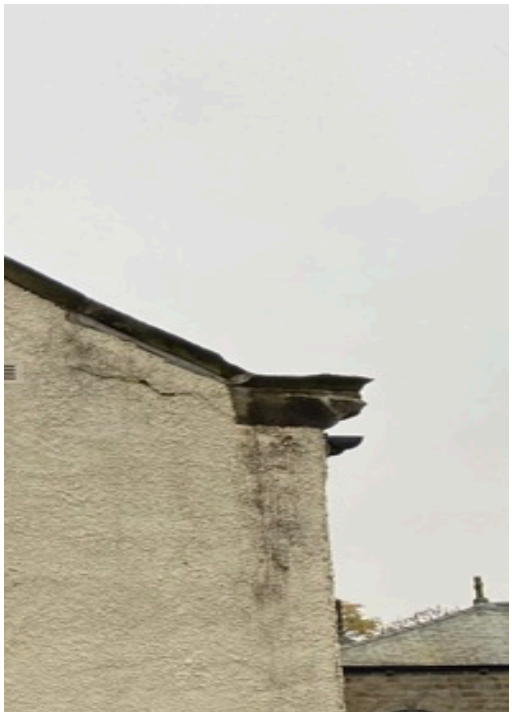
This coincides with the following:

**1.1 Rear down pipe and gutters:**
Gutters and downpipes are in cast iron painted black
It is likely that gutter capacity is reduced, and joints could be leaking.
It is proposed to undertake the following:

a) Provide suitable access and undertake detailed inspection at close quarters
b) Clean out gutters to ensure free flowing and minimise the chance of rainwater surcharging the gutter

c) Undertake a water test of gutter and rainwater pipe to ensure that rainwater pipe and gutter do not have any leaks. To extent that leaks are identified they will be repaired in accordance with cast iron rainwater goods manufacturers recommendations. Any decoration is to be made good using black gloss paint.

**1.2 Cracking to gable elevation**:



**Photograph 2**: Gable/ external elevation junction at verge

-There is evidence of a previous mortar repair to underside of coping extending up from rear elevation Kneeler stone approximately 1m.
-It is noted that there is no overhang or capillary drip to verge stone coping.
-There is bulging and cracking to render below mortar repair.
-Ideally stone coping should incorporate an overhang and capillary groove to prevent water tracking behind render. Given the historic nature of the property this is not possible.

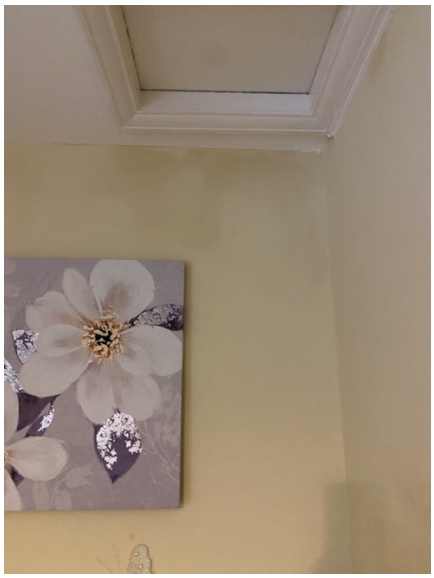
Given the above we propose the following:

a) Provide suitable access and undertake detailed inspection at close quarters
b) Carefully remove existing stone copings, set aside and protect to re- fit on completion.
c) Lay code 4 lead sheet under coping 100mm. lap top over bottom and return down to gable elevation covering and protecting top edge of render. Apply patination oil. As detail 1
d) Fit stainless steel angles to support upper edge of copings, fixed with resin bolts to wall. Refit stone copings and re-point in lime mortar. As detail 1

e) Allow for stone repair to coping using stone restoration method colour matched to existing stone as detailed in appendix A ensuring a true square edge
f) Undertake hammer test, remove loose friable and de-bonded render.
g) Ensure wall is dry and sound, apply pebble dash render to effected areas (refer to appendix B), provide stainless steel bead to form a hard edge to stone coping

**Internal remedial repairs**
Once external remedial works are completed undertake the following works:
-Undertake hammer test, hack off any damp, friable or de-bonded plaster to expose brickwork, ensure wall is dry.
-Repoint any defective or open mortar joints using lime mortar as appendix D
-Apply lime plaster to all affected areas as Appendix E
-Apply breathable wall paint to gable wall and chimney breast wall complete and to any other effected areas (ensuring paint taken to a natural stop so as not to look patchy, as Appendix F

## Decoration staining area 2:



**Photograph 3**: Rear bedroom gable/ chimney breast inner wall at ceiling junction

-There is damp evident at gable external wall. This is approximately 630x350mm in size

This coincides with the following:

**Photograph 4**: Gable elevation at chimney breast viewed from rear bedroom
**Issues identified**:
-Verge coping stops short of chimney; this could allow water to track into structure.
-There is a lead step and apron flashing but this does not extend down over render.
- Verge stone coping has insufficient overhang and no capillary groove
- There is cracking evident to render extending from chimney breast/ verge coping junction extending down to within approximately 1m of first floor level. Some areas of render are bulging

Given the above we propose the following:

a) Provide suitable access and undertake detailed inspection at close quarters
b) Undertake hammer test, remove loose friable and de-bonded render.
c) Ensure wall is dry and sound and apply pebble dash render to effected areas. Provide stainless steel bead to form hard edge between render and stone verge coping (refer to appendix B)
d) Provide Code 4 lead flashings to chimney to lead sheet associations recommendations ensuring suitable upstand and cover top edge of render. Lead to be rebated into mortar joint and lead clipped to upper edge as appropriate. Apply patination oil

**Internal remedial works to rear bedroom:**
Once external remedial works are completed undertake the following works:
-Undertake hammer test, hack off any damp, friable or de-bonded plaster to expose brickwork, ensure wall is dry.
-Repoint any defective or open mortar joints using lime mortar as appendix D
-Apply lime plaster to all effected areas as Appendix E
-Apply breathable wall paint to gable wall and chimney breast wall complete and to any other effected areas (ensuring paint taken to a natural stop so as not to look patchy, as Appendix F

## Decoration staining area 3:

**Photograph 5**: Chimney breast viewed from rear bedroom

There is staining of the wall approximately 400x450mm in size , set approximately 250mm in from external wall/ chimney breast corner at a height of approximately 1050mm above finished floor.
There is also rusting of plaster corner bead to chimney breast near door. It is understood this is most likely to be contamination of plaster due to historic use of chimney as an open fire.
Given the above we propose the following:

**Internally**

a) Carefully hack off defective plaster and carefully remove rusting corner bead
b) Fit new galvanised corner bead and apply lime plaster system to effected areas as Appendix E
c) Make good decoration to full walls complete using breathable paint system as Appendix F

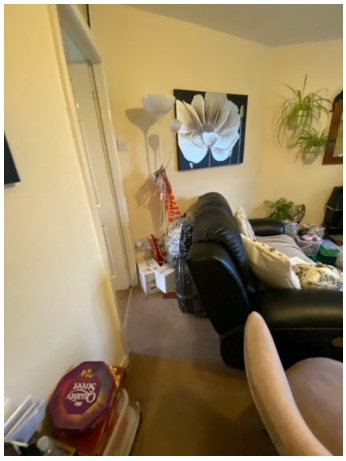
**Externally**

d) Rectify defects as indicated in photograph 4
e) Check to ensure that chimney pot is capped to prevent water ingress

## Front Livingroom:

**Wall:** Painted embossed wall paper
**Ceiling**: Painted embossed wall paper

## Decoration staining area 4:



**Photograph 5**: View onto chimney breast within Livingroom

-A specialist damp survey was commissioned by Your Housing Group to chimney breast, this identified that there was high moisture readings to chimney breast wall and identified the course as being contaminated plaster arising out of historic use of chimney for open fire.
Recommendation is to replace plaster

Given the above we propose to undertake the following works:

a) Carefully remove existing wall coverings, taking care to form a straight edge to chimney breast, carefully hack off plaster to chimney breast wall
b) Replaster chimney breast wall using lime plaster as appendix E
c) Consult with resident and either paint chimney breast wall using breathable paint as Appendix F or apply embossed wall paper and paint to match existing.

## Decoration staining area 5:

**Photograph 5**: View onto gas fire, on external gable wall

There is evidence of finishes discolouration below the gas fire to external wall. The gas fire is vented direct to external air via a fan assisted flue in gable wall.

Given the above we propose:

**Internally:**

a) There is no wall paper to this area
b) Carefully remove plaster to effected area
c) Replace plaster with a lime plaster to Appendix E
d) Make good decoration to match existing, painted embossed wall paper

**Externally**

e) Provide access to flue
f) A gas safe engineer and site manager is to inspect external flue to ensure that there is a suitable seal between render and flue pipe to prevent water ingress.
g) Make good as required.

## Decoration staining area 6:

**Photograph 6**: View onto front door reveal
There is evidence of chalking to plaster and paint finish

We purpose the following:

**Internally**

a) Carefully cut back any wall paper locally to a neat edge to expose effected area
b) Carefully remove plaster to effected area, review condition of plaster bead
c) Replace plaster with a lime plaster to Appendix E, replace galvanised plaster bead if necessary
d) Make good decoration to match existing, painted embossed wall paper Make good as required.

**Externally**

Replace chimney flashings to lead sheet associations recommendations ensuring suitable upstand. Apply patination oil.

## Area 7

There is localised area of missing mortar and render sits proud of stone coins. This will allow moisture to track into the building. Internally there is high moisture readings corresponding to this area.

Given the above we propose the following:

**Externally**

a) Provide access

b) Inspect mortar to coins, where missing or in poor repair repoint using lime mortar as Appendix D
c) Carefully cut back render where sitting proud of coins, render as Appendix B

## General render repair:

The main areas of defects affecting the property have been individually identified it is however recommended that access is provided and a close inspection of render to gable elevation be undertaken to identify any additional defective cracks and undertake hammer test to identify any de-bonded render. To the extent that further cracks are identified these to be pointed up with lime repair and any debonded render cut out and replaced as specified previously.

## Gable decoration:

Paint decoration is currently poor. Once repairs have been undertaken the gable may look unsightly and in need of decoration.
Based upon the above we propose the following:
Redecorate full gable elevation to number 4 using breathable paint system as appendix F

# APPENDIX A: Stone repair:

## Stone repair/restoration Initial assessment:

- All works must be undertaken by a competent heritage contractor who is experienced is the use of Remmers restoration mortar system.
- Once area is cleaned and prepared then a detailed inspection must be undertaken by stone specialist to identify location and extent of any defects.
- Particular attention must be given to any encountered defects to lintel near any window /door heads or structural openings close to bearing onto masonry as excessive damage to these areas may adversely affect the structural performance as a lintel. If this is suspected, then this may require inspection by a competent structural engineer (unless specifically stated none is envisaged).

- Any cracks within stone must also be reviewed to establish if they to an extent compromise structural integrity and if member is structural again engineer may need to inspect and confirm acceptable (unless specifically stated none is envisaged).
- As part of contractors inspection Remmers representative must be invited to review effected areas and recommend on application specification. Follows is an overview of recommendations for standard not structural areas.

**Stone repair system where decorated**

- P**reparation**: Clean and remove paint as specified above.
- **Extent of works**: To sills, heads and other stonework that forms part of the external facade
- **Site inspection:** Allow for carefully inspecting existing stonework/ concrete,identifying any cracks, friable stone/ concrete or other damage. Prepare schedule of repairs and provide for contract administrators approval. Where works are part of a listed building consent the report shall be provided to the Conservation officers for their approval. Where works are part of a general maintenance program and the conservation officer has confirmed that a formal application is not required we would recommend that specification extent of proposed works be provided to the conservation department prior to commencing works allowing the conservation officer the opportunity to inspect/ comment if they so require.
- **Product:** : Restoration mortar for decorated concrete or stone is to be Betofix RM by Remmers UK or equal and approved (CE marked and to EN1504) .
- **Preparation:** Remove any loose, friable material and prepare in accordance with Remmers UK written recommendations.
- **Cracks:** Fully expose and bond static cracks with Remmers Injection Resin EP and seal dynamic, moving cracks with Remmers Injection Resin PUR.
- **Filling of holes or restoring chipped edges:** Remove any loose, friable material, provide temporary formwork to exposed edges if required and apply Remmers UK Betofix RM (in layers where required), levelling the overall surface and re-profile and

filling any surface defects such as blowholes. Ensure flush, smooth and to original profile prior to redecoration.

- **Decorate:** Prepare undercoat and twice paint using Keim mineral paint system and approved paint as specified below

**Stone repair system where not to be decorated**

- **Extent of works**: To sills, heads and other stonework that forms part of the external façade
- **Site inspection:** Allow for carefully inspecting existing stonework, identifying any cracks, friable stone or other damage. Prepare schedule of repairs and provide for Contract administrator and Conservation officers approval. Include for all consultation with the manufacturers onsite technical support to best identify the colour match from range of 20 colours where appropriate or if required colour matched, 2 strength grades, feather edge or cement grade and 3 grain sizes as to suit site conditions. Include for sample for approval prior to commencing the works.

- The works (up to a depth of 20mm): Self finished stone where cracked or damaged will be restored using a colour matched stone restoration mortar by Remmers UK of equal and approved (CE marked and to EN1504) .
- **Preparation:** Cut out all loose and damaged stone to achieve a sound load bearing substrate. Stainless steel dowels to be used where required and/ or temporary formwork for extra support. If after removal of damaged stone the substrate is friable, then pre-strengthen with Remmers KSE range of strengtheners prior to repair (seek technical guidance from Remmers)
- **Priming:** Prime the surface of the repair with a slurry coat of Restoration Mortar.
- **Repairing the Stone:** Apply Remmers UK Restoration Mortar to a thickness 2mm

proud of the surrounding stone and to a maximum thickness in one layer of 30mm. After initial cure, form architectural details or stone profile using toothed blade or masonry tools. Ensure flush, smooth and to original profile.

- **Final Protection:** Once fully cured, treat entire stone surface with Remmers Hydrophobic impregnation (Remmers SNL for sandstone or SL for Limestone).
- **The works (for depths over 30mm):** Repair to a depth of 10mm of the finished surface using Remmers UK Betofix RM and finish with Remmers UK Restoration Mortar. All as described previousl

## APPENDIX B: Render repair:

Unless stated otherwise render will be a lime based system for breathability.
Render sampling is currently being undertaken to inform what the current mix is.

# APPENDIX C: Gable external paint specification:

Unless specifically stated otherwise paint will be a breathable external quality paint system.
Paint sampling is currently being undertaken to inform what the current application is.
Initial specification is as follows but to be verified by paint manufacturer prior to application.

1. Paint system used must be a breathable system, unless otherwise agreed with conservation officer paint system must be keim specification as below. Prior to commencing any works keim technical representative must attend site, provide detailed report and confirm any applicable warrantees that they may be able to offer. Keim is an advanced eco-friendly mineral paint system manufactured since since 1878. It is Odourless, incombustible and breathable ideal for use on heritage to high rise schemes.

   façade where paint removed.

   **PRE-TREATMENT**

   - All loose, flaking and unstable material must be identified and then thoroughly removed using stiff brushes and broad bladed scrapers to get back to a sound edge; these edges should then be feathered in. Ensure that any paint materials left remaining and the underlying substrate is sound and adhering well. Any gloss or shiny surfaces should be thoroughly flatted down using sand or emery paper to create a good key.
   - All surfaces should be washed down with clean cold water to remove all surface dirt and dust.
   - The first coat of Keim Royalan Grob will obliterate any hairline cracks. Any larger cracks over 1mm in width or where there is a need to equalise the surface should be filled using Keim Spachtel, a ready to use silicate mineral filler, brush or trowel applied to a pre-wetted surface and dressed back to the required level.
   - Any newly rendered/repaired areas must be allowed to dry out for a minimum period of 15 days prior to the application of Keim Mineral Paints.
   - All mould and fungal growth must be thoroughly removed by pressure washing (doff system) and a stiff brush. Once the prepared surfaces have dried, they should be uniformly soaked with undiluted KEIM Algicid-Plus by brush or flood coating (do not spray). Subsequent washing down is not necessary. Once the product has been allowed to act for at least 24 hours, KEIM coating systems can be applied onto the cleaned surface.
   - When all surfaces are clean, sound, wind dry, dust free and free from all surface contaminants, decoration using Keim Mineral Paints may proceed.

   **DECORATION**

- A two coat Keim Royalan system shall be used, the first coat to comprise Keim Royalan Grob diluted with approximately 20% by weight Keim Royalan Dilution, applied by brush, roller or airless spray and worked well into the surface. After a minimum period of 12 hours a final undiluted coat of Keim Royalan in the chosen colour shall be applied in a like manner.
- Typical consumption rates onto a previously painted smooth surface would be as follows:
- Keim Algicid
- Keim Spachtel

  repair

  **First Coat**

  Keim Royalan Grob Keim Royalan Dilution

  **Second Coat**

  Keim Royalan

0.2 lt per square metre
10 kg per square metre for 5mm thick

0.2 kg per square metre 0.04 lt per square metre

0.2 kg per square metre

Please note that these consumption rates are offered for guideline purposes only and should more accurate measures be required then site trials must be conducted. Keim advise that they would be pleased to provide samples in order for contractors to verify consumption rates and/or colour choice.

**SCOPE OF ADVICE**

The key to optimum performance with Keim products is preparation prior to decoration. Please ensure that all recommendations in the General Considerations Section are followed. Tgis specification was provided by Keim in 2021 to a listed building similar in nature to the one being reported in this report. Notwithstanding it is strongly recommended that a site specific inspection and report is obtained from the manufacturer.

**GENERAL**

General points to be borne in mind when using Keim Mineral Paints are:-

In order for Keim Mineral paint to achieve its permanent bond with the surface it is essential that the following recommendations are followed.

**Pre-treatment –**

- all areas to be decorated should be free from all surface contaminants, sound, dry and dust free

- all loose, flaking and unstable material must be identified and then thoroughly removed using stiff brushes and broad bladed scrapers to get back to a sound edge; these edges should then be feathered in
- ensure that any paint materials left remaining and the underlying substrate is sound and adhering well
- caution should be taken with the removal of any pre 1960's coatings as they may contain lead
- any gloss or shiny surfaces should be thoroughly flatted down using sand or emery paper to create a good key
- if the surfaces are being chemically stripped ensure that they are thoroughly washed down of all residue prior to decoration. Due to the potential for an osmotic drawing reaction, which can bring contaminants to the surface, we do not recommend the use of poultice based strippers if the surfaces are to be redecorated
- any powdery or chalking surfaces will require treatment prior to decoration – contact Keim to ascertain the appropriate product
- use only Keim recommended fillers and sealers. Acrylic, resin and gypsum based fillers particularly are not recommended for use with mineral paints

**Material Application –**

- always maintain a wet edge and work materials out well
- all materials must be thoroughly mixed beforehand, and periodically during

  decoration, using a mechanical mixer. We do not recommend intermixing packs, however if this is necessary ensure that products are thoroughly mixed beforehand to ensure even pigment dispersion, prior to mixing

- materials must not be applied at temperatures below 5oC nor those in excess of 30oC
- materials must not be applied if it is raining or if there is an immediate likelihood of rain
- Keim Mineral Paints should be applied onto wind dry surfaces where the moisture content on or near the surface (to a depth of 5mm approximately) should be no greater than 18% by volume. For on-site purposes a moisture meter may be used to give a qualitative reading – if the reading is in the green zone decoration may proceed
- on newly rendered surfaces we would suggest that a period of at least 15 days (30 days for lime render) is allowed following rendering, prior to the application of Keim paints
- mineral paints are manufactured using natural components and as such can appear to dry out unevenly. This is the way in which they dry, once fully dried any unevenness will disappear. Do not over-roll or touch up the paint during the drying process as this may inadvertently create patching once dry
- mineral paints will lighten as they dry, with a corresponding increase in opacity
- if airless spraying, please contact Keim for details of the appropriate nozzle sizes and optimum mesh and filter types

**Housekeeping –**

- all adjoining surfaces must be protected during decoration, any splashes/unwanted paint removed immediately, before it is able to completely dry and bond to the surface

- any splashes or spillage should be removed immediately using water - particular note needs to be taken of this in respect of Keim on glass, as it has a slight etching effect if allowed to dry hard
- clean all brushes and tools immediately in water (some ancillary products containing solvents may require white spirit or turpentine, if in doubt please consult the relevant product technical data sheet)
- always store materials upright and secure. Protect from extremes of temperature and store in frost- free conditions

**General –**

• when ordering reference to the project should be made, to ensure that in the event of re-ordering a colour match can be supplied to avoid confusion, the recommendations within this specification should be followed where there are any minor differences between this document and the standard advice on packaging and technical data sheets

• Keim Mineral Paints Ltd operates a policy of 'sale and no return' on all goods supplied in good faith

# APPENDIX D: Lime mortar specification:

**Mortar repointing**:

**Initial inspection**:

- The specialist heritage contractor must undertake a detailed inspection of all

  brickwork and stonework and mortar bed and joints to ascertain condition prior to commencing

  works.

- Any areas of cement based mortar must be identified, Cement based mortar is a stronger mix that traditional lime mortars and can damage soft traditional bricks and stonework. To the extent that it cannot be positively confirmed as cement based it shall be tested to confirm or rule out. Any areas of cement based mortars shall be carefully raked out to remove cement mortar and back to sound substrate then re-pointed in a suitable lime mortar as specification below
- Any areas of missing mortar shall be identified, these will form ledges to brick/ stone and will allow deteriation deeper into the mortar joints that may destabilise the structure. Any areas of missing mortars shall be carefully raked out back to sound mortar and re-pointed in a suitable lime mortar as specification below.
- Any remaining areas will be checked to ensure sound and stable, using a flat bladed qirk and 2kg masons hammerany loose or friable material must be raked out back to sound substrate and re-pointed in a suitable lime mortar as specification below
- Note re-pointing should be undertaken to a depth at least twice the width of mortar joint but not so deep that it will destabilise the brick/ stone. Any areas of inadequate re-pointing work will overtime fail and so should be raked out back to sound substrate at sufficient depth and re-pointed in a suitable lime mortar as specification below.

  **Undertaking the works:**

- **Operatives:** Operatives must be competent and experienced with specifying and working with traditional lime mortars on listed buildings.
- **Sample panel:** sample panels will be prepared in a discrete location and representative of each any every situation ( e.g stone brick and varying types and colours). The timing of panel preparation is essential as it will be necessary to let the sample panel dry and cure for a reasonable period. Panels will be inspected by the contract administrator. In the first instance photographs may be issued to the conservation officer for approval/ comment and they may wish to inspect in person.

In all cases the contractor will be responsible for undertaking in a timely manner as the process can take some time. As part of the process it will be necessary for specialist analysis of original mortar to ensure that mix is appropriate and colour match accurate

- **Removing defective mortar:** Cut or rake out all joints to a depth of 25mm to 38mm (max). The mortar will be taken back to a square face and the joint cleaned out using a mains pressure hose as work proceeds. Care will be taken to avoid damage to the masonry arrises, and any bricks that have been severely damaged by frost, water etc. will be removed and a matching reclaimed brick will be let-in using a bedding mortar mix of 1 part natural hydraulic lime (NHL 3.5) and 2 parts well- graded sand. The use of hooked tools or masonry chisels should be used , specialist historic chasing out tools may be acceptable but should be offered for approval prior to use , circular saws are not acceptable

# Mortar repointing specification to masonry:

- Repointing will be carried out following approval of sample panel by the contract administrator and where applicable local authority conservation or buildings-at-risk officer. As part of the process
- Mortar mix to general brickwork 2 sand/1 grit: 1 NHL3.5 ( i.e 3:1 NHL3.5 mix). The selection of sand is essential to the final colour and must be carefully selected matching that of the original.
- For high level brick e-pointing works, e.g. to chimneys and parapet copings where resistance to freezing and thawing actions is desirable, the suggested mix will be: 1 part natural hydraulic lime (NHL 5) to 3 or 21⁄2 parts well graded aggregate (predominantly washed building sand of appropriate colour with the inclusion of Mersey grit or similar).
- A mix of 1 part natural hydraulic lime (NHL3.5) to 2 parts of well graded aggregate (predominantly washed building sand of appropriate colour with the inclusion of Mersey grit or similar) is also acceptable for copings and capping's.
- All joints will be pre-wetted prior to repointing. Mortar will be packed firmly into the back of the joint using a pointing key of appropriate width for the joints. The joint will be packed and built-up until full. A trowel is not to be used for filling the joints. Because a hydraulic mortar is being used and if the bricks have retained their sharp arrises, the joint is to be finished flush as work proceeds (i.e. joint profile: flush). If weathering has blunted the arrises care must be taken to ensure to keep the face of the new mortar within the original joint width, however far back that may be. A small pointing trowel will be used to trim away any surplus mortar and to expose the arrises of the brickwork. The joint faces can then be tapped using a stiff brush to compact the face and slightly expose the aggregate.
- All work must be protected from wind rain and sunlight while setting by use of ventilated covers (multiple layers of hessian) and regularly mist sprayed to prevent drying out additional plastic sheets or hessian in front may be required in windy conditions.

## Mortar repointing specification to stone copings, coins and chimney stonework:

Workmanship shall be as described above,  mix shall be as foloows;

**Chimney stonework pointing**:  Shall be NHL5 1:2 mix

**Coping stonework pointing**:  Shall be NHL3.5 1:2 mix or NHL5 1:3 mix

## APPENDIX E: Lime plaster specification:

Unless otherwise stated internal plastering shall be undertaken using Lime green Ultra Lime plaster base coat ( as attached data sheet) finished with Lime Green fine stuff all in accordance with manufacturers written recommendations

# APPENDIX F: Breathable paint specification:

Unless otherwise stated internal decoration used in repair proposal shall be mineral breathable paint system. For use on Lime plaster.

To be Beeck Maxil Pro prepared and applied in accordance with manufacturers written recommendations.

Beeck Maxil Pro is a internal mineral paint, part of the Beeck range of paints suitable for historic and contemporary buildings. Beeck Maxil Pro has been developed to offer the highest scrub resistance (class 1), the highest opacity/ covering power (class 1) and the lowest Sd Value (0.01) for internal paints. Especially designed for durable, uniformly and brilliant mineral coatings. Extremely economic and long-lasting.
Beeck Maxil Pro is able to support the entire range of Beeck colours, from white through to Colour Group 4. All colours represented are indicative. We recommend experiencing the paint first-hand with a sample pot.

Rev A: Added lead soakers under copings to allow dressing over lead preventing water ingress behind render, added airbrick to rear elevation to allow venting of extract fan in bathroom (15/12/22)