

SPECIFICATION FOR PLASTER WORK

1.1 Materials

For plaster mixes see workmanship section.

Well matured lime putty: to BS890 section 4, minimum density 1.35 KG/litre matured for a minimum of 60 days. available from Masons Mortars, 77 Salamander Street, Leith, Edinburgh. EH6 7JZ. Telephone: (0131) 5550503 - or equal approved.

Ox, goat, horse or yak hair: To be clean, free of grease, strong but not coarse, cut into lengths of 35 – 90mm prior to mixing. Available from Masons Mortars, 77 Salamander Street, Leith, Edinburgh. EH6 7JZ. Telephone: (0131) 5550503, Clayton Tannery, Chesterfield, Derbyshire. Telephone: (01246 232863) - or equal approved (sold by weight).

Sand: to BS 1200 Table 1, washed sharp sand and washed soft sand. Sand shall be well graded up to course and free of salts, clay, loam and soil.

Sand to be sieved through a mesh of the following size for the different coats:

Undercoats – aperture size of 5mm (3/16").

Finishing coat: aperture size 1.18mm.

Water: obtain from mains supply only (drinking water).

Laths: Riven oak, straight grained, heartwood. Details to match existing in terms of whether the laths are split or sawn, length, thickness and spacing. Optimum size 25 –32mm wide, 5 – 6mm thick in 900 - 1500mm lengths.

Nails: to be of suitable length, non-ferrous or galvanized.

1.2 Workmanship

Please note that where run cornices are to be formed in areas of new lime plaster, the plaster needs to be perfectly straight.

3 coat work will be required unless thickness of existing plasterwork is less than 18mm. For pricing purposes allow for 3 coat work – this will be discussed on site before work commences.

To existing stonework

Plaster thickness exceeding 18mm – 3 coat work

Carefully rake out mortar joints in stonework to a depth of 10 mm. to provide a key for new plaster. Remove any further loose plaster and slightly undercut the edge of the existing plaster to form joint with new. Brush down walling to remove all dust and debris and cart all away.

First/rendering coat: 1:3 matured lime putty: sand. This can be reduced to 1: 2.5 depending on the background. The course stuff should be thoroughly mixed until the mix is uniform in colour and consistency. The plaster mix (excluding the hair) should be prepared and stored in air tight containers a minimum of 30 days before use. Knocking up should be done before each work session. Add hair in the

proportion of 0.5kg (1lb) hair to 100 litres of course stuff, well mixed. Hair is to be gradually teased into the mix to ensure good distribution and avoid lumps forming. Wet down substrate and prepared edge of existing plaster (to avoid excessive suction). Apply backing coat to the wall with a steel laying trowel, to a thickness between 6-16mm, compressing well against the substrate to achieve an adequate key. Scratch surface with a birch broom or devil float to form a key for the next coat once surface immediately after application of the first coat. Allow backing/first coat to dry before the second coat is applied. Please note that this may take several weeks depending on the condition of the existing walls and general temperatures. Do not attempt to force dry the lime plaster.

Second/floating coat: 1:3 matured lime putty: sand. The second coat should be thoroughly mixed until the mix is uniform in colour and consistency. The plaster mix (excluding the hair) should be prepared and stored in air-tight containers a minimum of 30 days before use. Knocking up should be done before each work session. Add hair if required to help prevent shrinkage – the proportion of hair should be smaller than for the first coat. Hair if used is to be gradually teased into the mix to ensure good distribution and avoid lumps forming. Sweep dust off the surface. Moisten first coat to avoid shrinkage. Apply second coat to the wall with a steel laying trowel in one layer, thickness 13 – 16mm, to approximately 3mm below the existing surface finish level of the adjacent existing plaster. Compress well against the substrate to achieve an adequate key. Straighten/level off with a wooden floating rule or darby until a straight surface is obtained. Scour surface evenly with a wooden hand float once the work has stood long enough to give a firm surface but has not become dry. This should be done on the day of application and once the next day if required. Scratch surface with a devil float to form a key for the next coat once surface has been scoured. Allow second coat to dry sufficiently before the finishing coat is applied. Please note that this may take several weeks to a month depending on the condition of the existing walls and general temperatures. Do not attempt to force dry the lime plaster.

Third/finishing coat (setting stuff) : from 1 to 2 lime putty: 2 to 1 fine washed sharp (silver sand) sand. Please note that if very fine sand is used there is an increased likelihood of shrinkage cracks appearing. The plaster mix should be prepared and stored in air tight containers a minimum of 30 days before use.

Sweep dust off the surface. Damp down second coat early and thoroughly with clean water. Apply finishing coat in 2 to 3 layers to a maximum thickness of 3 - 5 mm once second coat is firm and nearly dry. Scour surface once firm enough to form a well consolidated flat surface to match existing. Trowel the finishing coat with a steel trowel and a stock brush. Finishing coat to align with existing plaster surfaces. When the surface is hard enough the whole of the surface should be gone over with a stock brush three times, in opposite directions. The first two times the brush should be lightly wet, the third time semi-dry. Surface texture of new plaster to be suitable to take a final painted finish. Allow to set/dry naturally. Inspect new plaster after seven days for hairline cracks. If these are found re-wash plaster over and into cracks.

To new/existing laths to walls and ceilings
Plaster thickness of 18mm and above – 3 coat work

Laths:

Details of laths to match existing as far as possible. Allow approximately 9 -10mm gap between laths, butt jointed at each end with a 3mm gap to allow for expansion along the length of the lath. Stagger break joints every 10 - 12 laths. Laths to be soaked in lime water before fixing. Fix each lath where it crosses a joist or batten using non-ferrous or galvanized nails. Ensure all exposed laths to be retained are well fixed back to the joists.

Plaster/application:

Wet laths well the day before work in an area commences. Laths to be wetted again approximately 2 hours before works proceeds. Damp down laths as required as work proceeds if laths become too dry.

Course stuff: 1:3 matured lime putty: sand. This can be reduced to 1: 2.5 depending on the background. The course stuff should be thoroughly mixed until the mix is uniform in colour and consistency. The plaster mix (excluding the hair) should be prepared and stored in air tight containers a minimum of 30 days before use. Knocking up should be done before each work session. Add hair in the proportion of 0.5kg (1lb) hair to 100 litres of course stuff, well mixed before use. Hair is to be gradually teased into the mix to ensure good distribution and avoid lumps forming. Wet down substrate and prepared edge of existing plaster (to avoid excessive suction). Apply backing coat to the laths with a steel laying trowel in a diagonal direction in one layer. Thickness of first coat should be between 10 - 15mm, compressing sufficiently against the substrate to force the plaster between the laths to achieve an adequate key. The first coat should be laid to a uniform thickness. Scour surface once on solid background once initial shrinkage has taken place. Scratch surface with a three-pronged lath scratcher or single pointed lath to form a key for the next coat once surface has been scoured. Allow backing/first coat to dry before the second coat is applied. Please note that this may take several weeks depending on the condition of the existing walls and general temperatures. Do not attempt to force dry the lime plaster.

Second/floating coat: 1:3 matured lime putty: sand. The second coat should be thoroughly mixed until the mix is uniform in colour and consistency. The plaster mix (excluding the hair) should be prepared and stored in air-tight containers a minimum of 30 days before use. Knocking up should be done before each work session. Add hair if required to help prevent shrinkage – the proportion of hair should be smaller than for the first coat. Hair if used is to be gradually teased into the mix to ensure good distribution and avoid lumps forming. Sweep dust off the surface. Moisten first coat to avoid shrinkage. Apply second coat to the wall with a steel laying trowel in one layer, thickness 13 – 16mm, to approximately 3mm below the existing surface finish level of the adjacent existing plaster. Compress well against the substrate to achieve an adequate key. Straighten/level off with a wooden floating rule or darby until a

straight surface is obtained. Scour surface evenly with a wooden hand float once the work has stood long enough to give a firm surface but has not become dry. This should be done on the day of application and once the next day if required.

Scratch surface with a devil float to form a key for the next coat once surface has been scoured. Allow second coat to dry sufficiently before the finishing coat is applied. Please note that this may take several weeks to a month depending on the condition of the existing walls and general temperatures. Do not attempt to force dry the lime plaster.

Third/finishing coat (setting stuff): from 1 to 2

lime putty: 2 to 1 fine washed sharp (silver sand) sand. Please note that if very fine sand is used there is an increased likelihood of shrinkage cracks appearing. The plaster mix should be prepared and stored in air tight containers a minimum of 30 days before use.

Sweep dust off the surface. Damp down second coat early and thoroughly with clean water. Apply finishing coat in 2 to 3 layers to a maximum thickness of 3 - 5 mm once second coat is firm and nearly dry. Scour surface once firm enough to form a well consolidated flat surface to match existing. Trowel the finishing coat with a steel trowel and a stock brush. Finishing coat to align with existing plaster surfaces. When the surface is hard enough the whole of the surface should be gone over with a stock brush three times, in opposite directions. The first two times the brush should be lightly wet, the third time semi-dry. Surface texture of new plaster to be suitable to take a final painted finish. Allow to set/dry naturally. Inspect new plaster after seven days for hairline cracks. If these are found re-wash plaster over and into cracks.

To existing stonework

Plaster thickness of less than 18mm – 2 coat work

Carefully rake out mortar joints in stonework to a depth of 10 mm. to provide a key for new plaster. Remove any further loose plaster and slightly undercut the edge of the existing plaster to form joint with new. Brush down walling to remove all dust and debris and cart all away.

Course stuff: 1:3 matured lime putty: sand. This can be reduced to 1: 2.5 depending on the background. The course stuff should be thoroughly mixed until the mix is uniform in colour and consistency. The plaster mix (excluding the hair) should be prepared and stored in air tight containers a minimum of 30 days before use. Knocking up should be done before each work session. Add hair in the proportion of 0.5kg (1lb) hair to 100 litres of course stuff, well mixed before use. Hair is to be gradually teased into the mix to ensure good distribution and avoid lumps forming. Wet down substrate and prepared edge of existing plaster (to avoid excessive suction). Apply backing coat to the wall with a steel laying trowel in one layer to approximately 3mm below the existing surface finish level of the adjacent existing plaster. Maximum thickness of first coat should be approximately 15mm, compressing well against the substrate to achieve an adequate key. Straighten with a feather edge rule or darby. Scour surface once on solid background. Scratch surface with a birch broom or devil float to form a key for the next coat once surface has been scoured. Allow backing/first coat to dry before the second coat is applied. Please

note that this may take several weeks depending on the condition of the existing walls and general temperatures. Do not attempt to force dry the lime plaster.

Second coat/setting stuff : from 1 to 2 lime putty: 2 to 1 fine washed sharp (silver sand) sand. Please note that if very fine sand is used there is an increased likelihood of shrinkage cracks appearing. The plaster mix should be prepared and stored in air tight containers a minimum of 30 days before use.

Sweep dust off the surface. Moisten first coat to avoid shrinkage. Apply second coat to a thickness of 2 – 3 mm. Brush final coat when wet and later with a damp brush before it hardens. Scour surface once firm enough to form a well consolidated flat surface. Surface texture of new plaster to be suitable to take a final painted finish. Finishing coat to align with existing plaster surfaces. Allow to set/dry naturally. Inspect new plaster after seven days for hairline cracks. If these are found re-wash plaster over and into cracks. Allow to dry completely before decoration.

To new/existing laths to walls and ceilings
Plaster thickness of 18mm or less – 2 coat work

Laths:

Details of laths to match existing as far as possible. Allow approximately 9 -10mm gap between laths, butt jointed at each end with a 3mm gap to allow for expansion along the length of the lath. Stagger break joints every 10 - 12 laths. Laths to be soaked in lime water before fixing. Fix each lath where it crosses a joist or batten using non-ferrous or galvanized nails. Ensure all exposed laths to be retained are well fixed back to the joists.

Plaster/application:

Wet laths well the day before work in an area commences. Laths to be wetted again approximately 2 hours before works proceeds. Damp down laths as required as work proceeds if laths become too dry.

Course stuff: 1:3 matured lime putty: sand. This can be reduced to 1: 2.5 depending on the background. The course stuff should be thoroughly mixed until the mix is uniform in colour and consistency. The plaster mix (excluding the hair) should be prepared and stored in air tight containers a minimum of 30 days before use. Knocking up should be done before each work session. Add hair in the proportion of 0.5kg (1lb) hair to 100 litres of course stuff, well mixed before use. Hair is to be gradually teased into the mix to ensure good distribution and avoid lumps forming. Wet down substrate and prepared edge of existing plaster (to avoid excessive suction). Apply backing coat to the laths with a steel laying trowel in a diagonal direction in one layer to approximately 3mm below the existing surface finish level of the adjacent existing plaster. Maximum thickness of first coat should be approximately 15mm, compressing sufficiently against the substrate to force the plaster between the laths to achieve an adequate key. Straighten with a feather edge rule or darby. Scour surface once on solid background once initial shrinkage has taken place. Scratch surface with a three-pronged lath scratcher or single pointed lath to

form a key for the next coat once surface has been scoured. Allow backing/first coat to dry before the second coat is applied. Please note that this may take several weeks depending on the condition of the existing walls and general temperatures. Do not attempt to force dry the lime plaster.

Second coat/setting stuff : from 1 to 2

lime putty: 2 to 1 fine washed sharp (silver sand) sand. Please note that if very fine sand is used there is an increased likelihood of shrinkage cracks appearing. The plaster mix should be prepared and stored in air tight containers a minimum of 30 days before use.

Sweep dust off the surface. Moisten first coat to avoid shrinkage. Apply second coat to a thickness of 2 – 3 mm. Brush final coat when wet and later with a damp brush before it hardens. Scour surface once firm enough to form a well consolidated flat surface. Surface texture of new plaster to be suitable to take a final painted finish. Finishing coat to align with existing plaster surfaces. Allow to set/dry naturally. Inspect new plaster after seven days for hairline cracks. If these are found re-wash plaster over and into cracks. Allow to dry completely before decoration.

Run Cornices

Cornices to be run/formed once the second coat for 3 coat work (first coat for 2 coat work) has been completed to both walls and ceilings. If required prepare and fix corner brackets of timber to the wall. Nail laths to corner brackets. Ensure all exposed laths to be retained are well fixed back to the joists.

Make a running mould to suit the cornice to be repaired.

Supply and fix running rules nailed or screwed to the walls/ceiling.

Coarse stuff (see section on 2 coat work for stone/laths) for the first coat should be extra haired. Cover the corner bracket and rough out the length of cornice to be repaired. Run the running mould with appropriate muffle across the length of the repaired section ensuring adequate clearance from the coarse stuff. Ensure that the first coat is well scratched and allow to dry.

Apply succeeding coats of lime plaster/course stuff following the general form of the mouldings. Scratch each coat on completion. Each muffle should have a profile which will shape a coat of plaster approximately 12mm thick. The final coat will be approximately 3mm thick and formed by a zinc profile. Lay on to and fill out the moulding as the mould is run along the cornice. Make good mitres by hand.

Final coat to be 1 to 3 : 3 to 1 lime putty : fine washed sand. Carefully select and prepare the fine stuff for this work to ensure a good finish is achieved. Make good mitres by hand. Remove running rules and make good fixing holes.

Generally

The temperature should not fall below 5 deg C during the execution of the works or until the mortar has hardened. Background heating may be required to regulate the temperature to ensure that it does not drop below 5 degrees. Heating should not be used to speed up the drying process.

Ensure that existing wallpaper is adequately protected during plastering work both in areas immediately adjacent to newly plastered areas and where vulnerable to being splashed by new plaster. Floors to be covered with suitable protective covering in rooms where plasterwork is to be carried out.

Sample panels will be required on independent timber framing - to experiment with the mixes and finishes especially for the final coat - see section at the start of the schedule of works for more details.

Woodwork

1.1 Materials

a. Timber

All timber shall be well seasoned, bright, sound, cut square and straight grained and shall be free from discoloured sapwood, wane, shakes, dry, loose or dead knots, or any other defects which will render it unsuitable for its intended use.

Timber for carpenter's work shall be in accordance with BS 4978, BS 4471 and CP 112, and shall have a moisture content of not more than 20% and not less than 15% of the dry weight at the time of fixing. The timber for structural use shall be graded in accordance with BS 4978, Class SC4.

Timber for joiner's work shall be in accordance with BS 1186 Part 1, Class 1S for hardwood and clear finished softwood, and Class 2 for softwood which is not concealed. Timber shall be used in accordance with the uses permitted in tables A and B. Moisture content to be between 15 – 18%.

b. Treated timber

All softwoods used for the following shall, without exception, be preservative treated. All roof timbers, roofing battens, wall plates, floor and ceiling joists, noggings and floor boards. Preservative to be applied by vacuum impregnation with an approved preservative and by an approved timber treatment centre to BS 4072 and BS 5268 Part 5. All cut surfaces made on site to be treated with a suitable brush applied preservative. A Certificate of Treatment shall be submitted to the Architect for approval.

c. Glues

Glues shall be in accordance with BS 1203/1204 and the appropriate grade shall be selected according to use and location.

d. Availability of timber

The Contractor shall satisfy himself that timber is available to him the sections proposed before submitting his tender. Some of the longer members may be available in one timber but not in another. A schedule of existing structural timber available at the Hall is attached as Appendix 2.

1.2 Workmanship

a. Storage

Timber shall be stacked clear of the ground and protected from the weather.

All new timber should be brought to site at an early stage and stored in the room where it is to be fixed to allow the timber to acclimatise to the conditions in the hall.

b. Jointing, fixing and assembly

The workmanship generally shall comply to the requirements of BS 1186 Part 2 and CP 112.

All framed work shall be cut out and put together immediately upon receipt of the details but shall not be glued and wedged up until ready for immediate fixing.

External joinery shall be put together with a WBP grade adhesive to BS 1204.

Where nails are used for fixing softwood, the nails are to be punched in.

New joinery should line through with existing joinery.

Please note that existing joinery is likely to be painted with a lead based paint.

c. Defective Work

Any new joinery that splits, shrinks or warps is to be renewed or replaced without charge.