REPAIRS AND RE-PLASTERING USING EXISTING WOODEN LATHS AND LIME PLASTERS - WALLS AND CEILINGS
WORK METHOD STATEMENT.
1. Preparation of Ceiling and Removal of Lath and Plaster
2. Repair
3. Laths.
4. Plaster.
1. REMOVAL OF LATH AND PLASTER
Clean all old plaster from between the laths Check all timbers are free from rot, insect activity, and are generally sound.
Use a brush to get rid of any residual materials and vacuum to remove dust. De- nail all timbers.
2. REPAIR
With repair, cut the edges of any existing plaster to halfway of the nearest joist; angle the cut on the old plaster at 45 degrees so the new material is applied over the bevel holding the edge of the original plaster in place. Ensure that all laths are securely fixed, re-nail where necessary.
Repairs would normally be carried out following the reinstatement of the key to the rest of the ceiling. Reinstatement results in the original ceiling being up to three times stronger than the original ceiling and resistant to affects caused by water leaks.
3. LATHS
Provide either oak or chestnut riven laths. The textured surface and exposed grain provides a better key.

Thoroughly wet laths. To remove the absorption from the laths spray with "Westox RAP primer or similar" thoroughly wetting the laths top and bottom, also soak the exposed edges of the plaster around the repair with the primer to "kill" the suction. This also helps to remove the problem of warped laths when the wet plaster is applied.
Soaking laths makes them easier to cut with a lath hammer, prevents splinters in the fingers during fixing, makes them easier to nail with less splitting and prevents the expansion of laths following the application of wet plaster which causes key breakage. Lime plasters are badly affected by too much suction so it is important that all suction is controlled.
Fix the lath at every fixing point (joist) using stainless steel fixings, such as nails, cup and screw, screw and washer or stainless steel brad nails. Make sure there is a 6mm – 10mm (3/8") gap between each lath to ensure the lime mix can squeeze through and hook onto the back of the laths.
Fix every lath the same way until you come to fix the eighth lath, move this one over one joist, to create a staggered joint, this will help prevent long, continuous cracks from developing.
Once the whole ceiling or wall is lathed it should be dampened about 10minutes prior to the application of the first coat, this gives time for any excess of water to run off and gives you time to knock up the lime mix. There shouldn't be any droplets of water on the laths, as this will cause the plaster to slide across the laths rather than stick to them.
4. a.
b.
PLASTERING Traditional Plastering Specification
MATERIALS
Plastering Sand. Pitt sand is preferred.
Slaked Lime Putty (minimum 14 days old)
(If hydrated bag lime is used pre-soaking to a putty is necessary to provide the correct volumes)
Cow or Ox hair for reinforcement
PREPARATION OF MATERIALS
Roughly mix the sand and lime together at the ratio of 3 parts sand to 1 part lime and 1 part of teased hair. (all parts are by volume and the same part measurement should be used for each component) Mix by placing 1 portion of lime into a mixer with water and the fibers followed by three portions of sand, tip out after turning over 6 or 7 times. Form a pile of the material until enough mortar has been mixed that is required for the render and float coats. Cover the pile

with a plastic sheet and leave for a minimum of 14 days before using if the lime has not been previously aged.(All measuring should be with gauging boxes, not shovels)
c. MORTAR.
Take 3 portions of the mixed material (e.g. 3 x 20 litres) this measure will consist of 60 litres of sand and 20 litres of lime (Lime mixes with the sand without increasing the bulk).
d. LIME SET COAT
The basic components of a lime set coat is a reverse of the scratch and float coats, ie, 3 parts sand 1 part lime mortar (Coarse stuff) to 3 parts lime to 1 part sand, set coat (Fine stuff) adjustment might be required depending on the sand and 5 parts lime to 2 parts sand is often the required mix after good clean pit sand is passed through a 300 micron sieve.
Mix the lime plaster in a clean mixing vessel using clean water, mix to a usable consistency and apply a scratch coat directly over the laths at a 45 degree angle to the laths so the plaster passes through the wire and laths curling over to form a key on the back of the laths, apply so approximately 5 to 8mm of the plaster is left on the underside of the laths, allow for initial set and scratch thoroughly ready for the following float coat. After the material has cured for several days mix fresh mortar and fill the area to be repaired or form screeds around the perimeter of the ceiling at the required finished level, if plastering a large area form box screeds to the perimeter screeds, fill between the screeds and rule and devil float to a flat keyed surface ready for the following set coat.
If a lime set is preferred allow three or 4 days before applying the lime set over the float coat (depending on the drying conditions)
e. SET COAT
In a suitable mixing vessel, place 3 portions of lime to 1 portion of sand, and mix to a usable consistency. Apply the mix to the float coat in an even coat at the approximate thickness of 3 to 4mm. After the initial application, lay the material flat and scour the surface with water and a wooden float to compact the material and prevent crazing. (If crazing occurs, increase the portion of sand to 1l/2 or 2 parts). When the material is well compacted, apply a 'laying in' coat tightly over the surface to fill any voids and finish with a steel trowel and water to a smooth even surface and leave ready for painting.

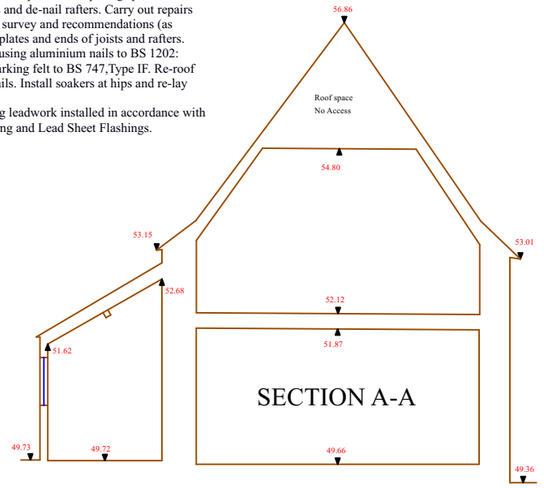
7.2.4 Roof and Rainwater Goods Repair
Overhaul and reinstate salvageable cast iron rainwater goods. Reinstate missing or irreparable parts of the system. Clean rainwater goods through to inspection chambers and generally ensure that all rainwater run-off is conducted to drains.
Carefully strip the existing slates and hip/ridge tiles as necessary for repairs not requiring specific LB consent. Set aside all sound items for re-use. Strip off all battens and de-nail rafters. Carry out repairs to timber roof structure in accordance with a structural engineer's survey and recommendations (as may be required), including renewal of central valley joists, wall plates and ends of joists and rafters.
Fix new treated battens to BS 1318 of same size as the originals, using aluminium nails to BS 1202: Part 1, set out to the same gauge as the original over reinforced sarking felt to BS 747,Type IF. Re-roof using all original sound Collyweston slates, fixing with copper nails. Install soakers at hips and re-lay hip/ridge tiles in sand/cement.
Renew all flashing, soakers, fillets, gutter linings and outlets using leadwork installed in accordance with the Lead Development Association booklets Lead Sheet in Building and Lead Sheet Flashings.

7.2.5 Brickwork, Stonework, Chimney and Render repairs
Cut back and treat all plant growth in external brickwork using a systemic killer; leave to die and then carefully remove. Remove root growth from internal plaster and masonry in similar manner.
Erect boarded scaffolding and carry out repairs to brickwork in accordance with a structural engineer's recommendations, including where necessary the following:
a) repair parapets and chimneys, re-lay parapet copings on damp proof course and point all joints in copings where identified on plans.
Rake out loose or defective mortar joints to stonework including chimneys and parapets (do not use hammer and chisel or pick hammer). Re-point using lime mortar and finish to a flush joint.
Replace broken chimney pots to match. Ensure all fireplace flues are clear throughout their height and install rain caps at all disused flues.
Repair external rendering in a colour, texture and composition to match the existing; renew existing rendered finish wherever this is cracked or has lost its bond.

9.0 Stonework repair
1.0 GENERAL
Where stone repairs are specified, an assessment will be made on site as to the most appropriate method using the joint experience and expertise of the stone mason and architect.
1. Stone should only be replaced or repaired where identified by the architect and any further stonework thought to require replacement and not shown on the drawings, should be marked up with chalk to allow for further inspection. The contractor must check with the architect if the drawings / instructions are not clear.
2. Stone should only be replaced or repaired where identified by the architect and any further stonework thought to require replacement and not shown on the drawings, should be marked up with chalk to allow for further inspection. The contractor must check with the architect if the drawings / instructions are not clear.
2.0 REPLACING STONE
The type of stone for use in replacements is to be confirmed by the architect following comparison of samples on site. For this purpose the contractor should provide samples of potentially suitable limestone for comparison and selection on site.
Cut out defective stone completely or to a minimum depth of 100mm (or depth to match width / height if less) , using hand tools and diamond disc cutters to minimise vibration; and taking care to avoid damage to arrises and surfaces of adjacent stonework
Provide support as necessary
Fix new stone as specified, worked and finished to conform with existing detail, bedded with lime mortar
Grout and point up with lime mortar finished to slightly reveal arrises keeping the work clean to prevent staining Replacement stonework shall have a rock-faced surface to match existing stonework. All surface finishing shall be of the same pitch to match existing adjacent stonework. All surface finishing shall be done by hand tools only.

7.2.4 Roof and Rainwater Goods Repair
Overhaul and reinstate salvageable cast iron rainwater goods. Reinstate missing or irreparable parts of the system. Clean rainwater goods through to inspection chambers and generally ensure that all rainwater run-off is conducted to drains.
Carefully strip the existing slates and hip/ridge tiles as necessary for repairs not requiring specific LB consent. Set aside all sound items for re-use. Strip off all battens and de-nail rafters. Carry out repairs to timber roof structure in accordance with a structural engineer's survey and recommendations (as may be required), including renewal of central valley joists, wall plates and ends of joists and rafters.
Fix new treated battens to BS 1318 of same size as the originals, using aluminium nails to BS 1202: Part 1, set out to the same gauge as the original over reinforced sarking felt to BS 747,Type IF. Re-roof using all original sound Collyweston slates, fixing with copper nails. Install soakers at hips and re-lay hip/ridge tiles in sand/cement.
Renew all flashing, soakers, fillets, gutter linings and outlets using leadwork installed in accordance with the Lead Development Association booklets Lead Sheet in Building and Lead Sheet Flashings.

7.2.5 Brickwork, Stonework, Chimney and Render repairs
Cut back and treat all plant growth in external brickwork using a systemic killer; leave to die and then carefully remove. Remove root growth from internal plaster and masonry in similar manner.
Erect boarded scaffolding and carry out repairs to brickwork in accordance with a structural engineer's recommendations, including where necessary the following:
a) repair parapets and chimneys, re-lay parapet copings on damp proof course and point all joints in copings where identified on plans.
Rake out loose or defective mortar joints to stonework including chimneys and parapets (do not use hammer and chisel or pick hammer). Re-point using lime mortar and finish to a flush joint.
Replace broken chimney pots to match. Ensure all fireplace flues are clear throughout their height and install rain caps at all disused flues.
Repair external rendering in a colour, texture and composition to match the existing; renew existing rendered finish wherever this is cracked or has lost its bond.



STONEWORK AND MORTAR MIX TO EXTENSIONS AND CART HOVEL
Keep facework clean during construction and until practical completion. ensure that no mortar encroaches on face when laying.
turn back scaffold boards at night and during heavy rain.
Rubbing to remove marks or stains is not permitted.
Facework to start nlt 150mm below fgl of paving or soil except where shown.
cut stone only where necessary at jambs, eaves and junctions.
Sample panel of stonework to be built for inspection/approval of planning officer is required.
The coursed stone rubble walling is to be formed using approved locally quarried limestone which is to be carefully graded by the mason into approximately five different bed depths. All bed and perp joints will be close and tightly formed throughout with simple pointing using a wire brush and rag.
Mortar ;
Use white OPC and lime by Limbux. unless otherwise specified by structural engineer, use mortar mix of 9 sand : 2 lime : 1 cement.
Sand to BS 1200. do not use admixtures unless approved by S.O. All materials are to be measured by using clean gauge boxes. proportions are for dry sand - allow for bulking if the sand is damp.
Do not use after initial set has taken place, do not re-temper.
Adequately protect new walling against snow or rain by suitable covering when precipitation has begun and at completion of days work.
Rake out and replace any mortar damaged by frost.
NOTE : Any stonework laid below DPC level is to be FL quality

Clipsham Stone
Sawn-on-Bed: honey-toned

- 65mm
- 90mm
- 115mm
- 140mm.

CLEANING UPON COMPLETION
All internal roof spaces shall be cleared of fallen debris and left in a clean state.
All gutters and hopper heads, hidden valleys and flat areas shall be cleared of debris and washed down and left in good free-running order.
All repaired chimneys shall be checked to ensure that fallen mortar and debris has not impaired the operation of any flue.
All loose mortar, dust and debris shall be cleaned from the wall faces and cills of all elevations affected by the contract and be left in the same state as found or better.
All ground beneath the scaffold and any other site works shall be cleared and left in a clean state, within 48 hours of the dismantling and taking from site of the scaffolding, unless otherwise agreed by the client/agent.
The finished roof shall match the former roof as recorded prior to start of work.

ELECTRICAL
All electrical work is required to meet the requirements of Approved Document Part P (Electrical safety) and therefore must be designed, installed, inspected and tested by a person competent to do so and as such be working under a relevant and approved Competent Persons Scheme.
If the person carrying out the work is not part of a Competent Persons Scheme, will result in the necessity for submitting a separate Building Regulations Application for the work.
IMPORTANT : A copy of the Electrical Inspection Test Certificate must be available on site for inspection by the Building Control Body.
An un-switched socket at low level, switched at high level, will be provided in the
kitchen area for the fridge/freezer, washer and dishwasher if specified.
All sockets and switches to be sited between 450mm and 1200mm above floor level in accordance with Part M of the Approved Document.

DEMOLITION - WHERE REQUIRED TO FACILITATE THE DEVELOPMENT
Measures to be put in place during and after the demolition to ensure the protection of the public, public amenities and adjoining properties.

Such measures to include:

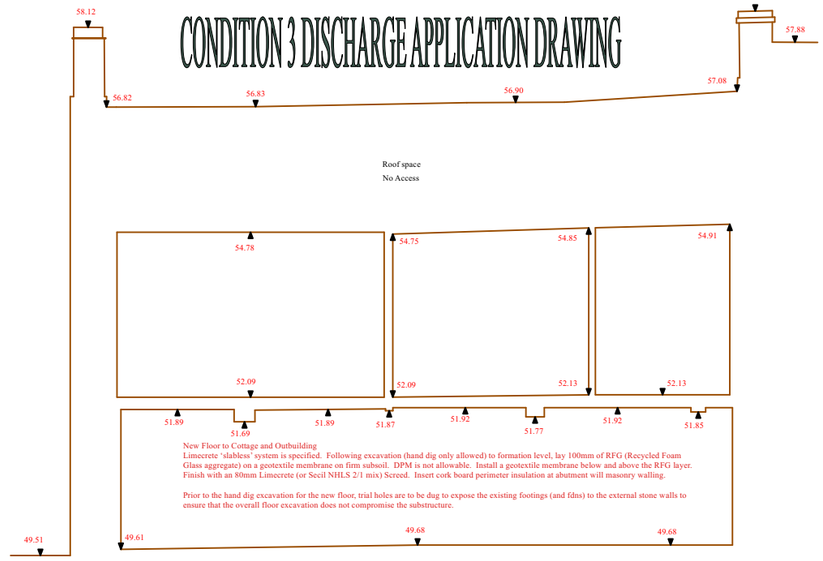
- The shoring of adjoining buildings.
- The control of dust and noise generation.
- The weatherproofing of any parts of adjoining buildings which are left exposed by the demolition.
- The repairing and making good any damage to any adjacent building effected by the demolition.
- The removal of material or rubbish resulting from the clearance and demolition of the site.
- The disconnection, sealing or removal of any drain or sewer, as required.
- The making good of any disturbed ground.
- Any arrangements necessary for the disconnection off all services (e.g. gas, water, electricity).

Consultation with the Health and Safety Executive, and Fire Authority should be sought if burning structures or materials on site.

If the demolition is more than 50m³ in volume a formal notice of demolition is to be given to building control at least six weeks before any demolition work starts, in accordance with The Building Act 1984: Sections 80-83.

Consultation to be undertaken with the occupiers of adjacent buildings where applicable and a Party Wall agreement put in place. A planning application to demolish to be made where required.
All demolition work to comply with the Construction (Design and Management) Regulations 1994 and a Health and Safety plan is to be provided by the principal contractor.
If applicable, reference should be made to the Construction Design Management Plan.

CONDITION 3 DISCHARGE APPLICATION DRAWING



SECTION B-B

45.00m Above Ordnance Datum

0 1 2 3 4 5

LEAD WORK AND FLASHINGS
All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all jambs and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.
Lead sheet in lengths not exceeding 1500mm for flashings where roofs abut the external brickwork are to be provided. Combined step and cover flashing fixed in position with lead wedges min. 25mm horizontal joint.
Flashings to be continuous with trays min. 150mm above roof abutment and
weepholes every 4th perpend.

LEAD VALLEYS
Lead-lined valleys to be formed using Code 5 lead sheet. Valley lead and two tiling fillets to be supported on min 19mm thick and 225mm wide marine ply valley boards on either side of the rafters. Lead to be laid in lengths not exceeding 1.5m with min 150mm lap joints and be dressed 200mm under the tiles.
Roofing tiles to be bedded in mortar placed on a tile slip to prevent direct contact. Valley to have a minimum 100mm wide channel (125mm minimum for pitches below 30°).
All work to be in accordance with the roof cladding manufacturers and the Lead Development Association recommendations.

Health and Safety

LEGISLATION & SAFETY PRACTISES - comply with the Control of Lead at Work Regulations 1998 SI543, Control of Lead at Work ATOP 1985 and the Construction (Design and Management) Regulations 2015. These regulations require specifiers and employers to avoid foreseeable risks and protect the health and safety of employees, and to keep them informed of these risks.
Contractors working with lead-based paints are required to dispose of wastes in accordance with the Environmental Protection (Duty of Care) Regulations 1992. Check with the local Environmental Health Officer or Waste Regulatory Authority for any special disposal provisions that may pertain locally.
Take precautionary measures to protect employees, the general public, and the environment. The immediate hazards are skin contact and inhaling airborne dust. Workers will require protective equipment to avoid inhalation, ingestion or contact; wet cleaning methods will keep dust to a minimum; (all operatives working on site will have to undergo lead testing, before during and after completion). The slurry and other waste from treatments such as cleaning must be properly handled, and disposed of according to the local requirements.
The Contractor is to ensure that damage to the environment and all health & safety risks are minimized ISO 12944-1 & 8.
Refer to HSE - Controlling airborne contaminants at work - A guide to local exhaust ventilation (LEV) ISBN 978 0 7176 6415 3

John Dickie Associates
Chartered Building Engineers
5, Victor Way, Cherry Holt Road,
Bourne, Lincs PE10 9PT
Tel 07778 297733 jda@ndirect.co.uk

Proposed Alterations and Extensions at Mill Cottages, Mill Lane Empingham LE15 8QE

Drawing Title : Sections
Client : Mrs. R. Griffin
Date APRIL 2024
Scale 1 to 100 at A3
Drawing No JDA/2024/20.2100.SUR/SECT/001