BARNHAM WINDMILL, YAPTON ROAD, BARNHAM

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A - SECTION 106 AGREEMENT DATED 24TH FEBRUARY 2009

BARNHAM WINDMILL, YAPTON ROAD, BARNHAM

1.0 BACKGROUND

1.1 This Specification and Schedule of Works has been prepared in accordance with the requirements of the Section 106 Agreement of the Town and Country Planning Act 1990.

1.2 The Schedule is intended to meet the requirements of Clause 5.0 – Provision and Execution of Barnham Windmill Preservation Project dated 24th February 2009.

2.0 SITE MEETING

2.1 A site meeting was held on the 15th May 2009 @ 13:00 hrs to discuss the requirements of the Conservation Architect approved by Arun District Council to advise upon the requirements of the Barnham Windmill Restoration Specification.

2.2 The meeting was attended by the following personnel:-

Mr. Michael Rowan – Conservation Architect
Mr. W. McAndrew – Chartered Surveyor and Conservation Advisor
Mr. B. Lee – Owner of the Mill

2.3 It is confirmed that the Specification and Schedule has been prepared in accordance with the requirements of the Conservation Architect.

3.0 Barnham Windmill Specification of Conversion and Preservation Works

Tearoom, Servery, and Toilet Area

3.1 Roof

Carefully remove all existing roof coverings along with all timber rafters from previous 1989 refurbishment; all peg tiles to set aside for possible re use.
New 45 degree pitched timber trussed roof to be erected, new roof construction to incorporate thermal insulation values to the most current building regulation requirements.

The trussed roof to incorporate new dormer windows, dormer cheeks to be tile hung to match the appearance of the existing all as drawing 091/P/047/11

3.2 External Walls

Carefully take down external Gable and flank walls down to window head level, clean off and set aside existing bricks for re use.

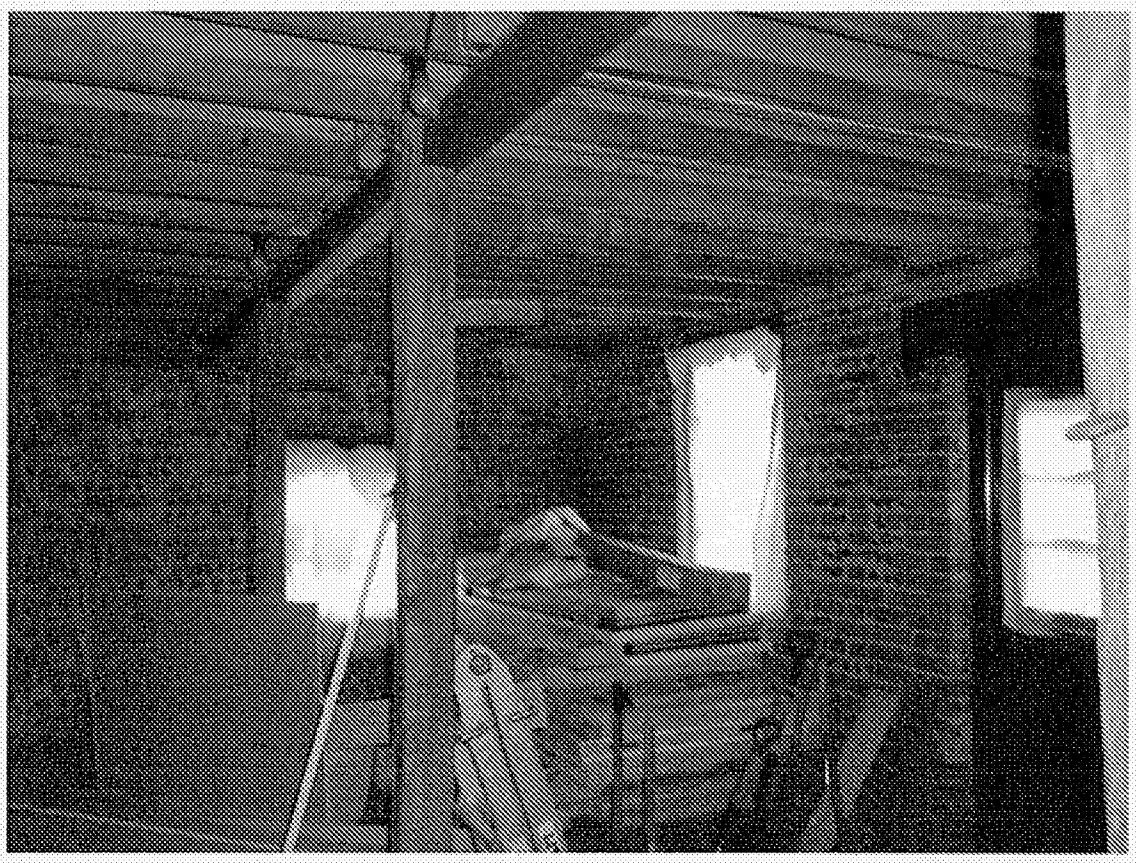
Remove existing over timber window lintels and replace with proprietary thin joint metal lintel to provide current standard structural requirements.

The Insitu concrete lintel over the entrance door is to remain.

The existing door and timber infill are to be removed and replaced with a single exterior entrance door to match the existing, form a new insitu concrete lintel to match existing.

Rebuild Gable and flank walls using set aside bricks, and supplement with reclaim bricks, all to match existing.

3.3 Internal Works to Tearoom Area

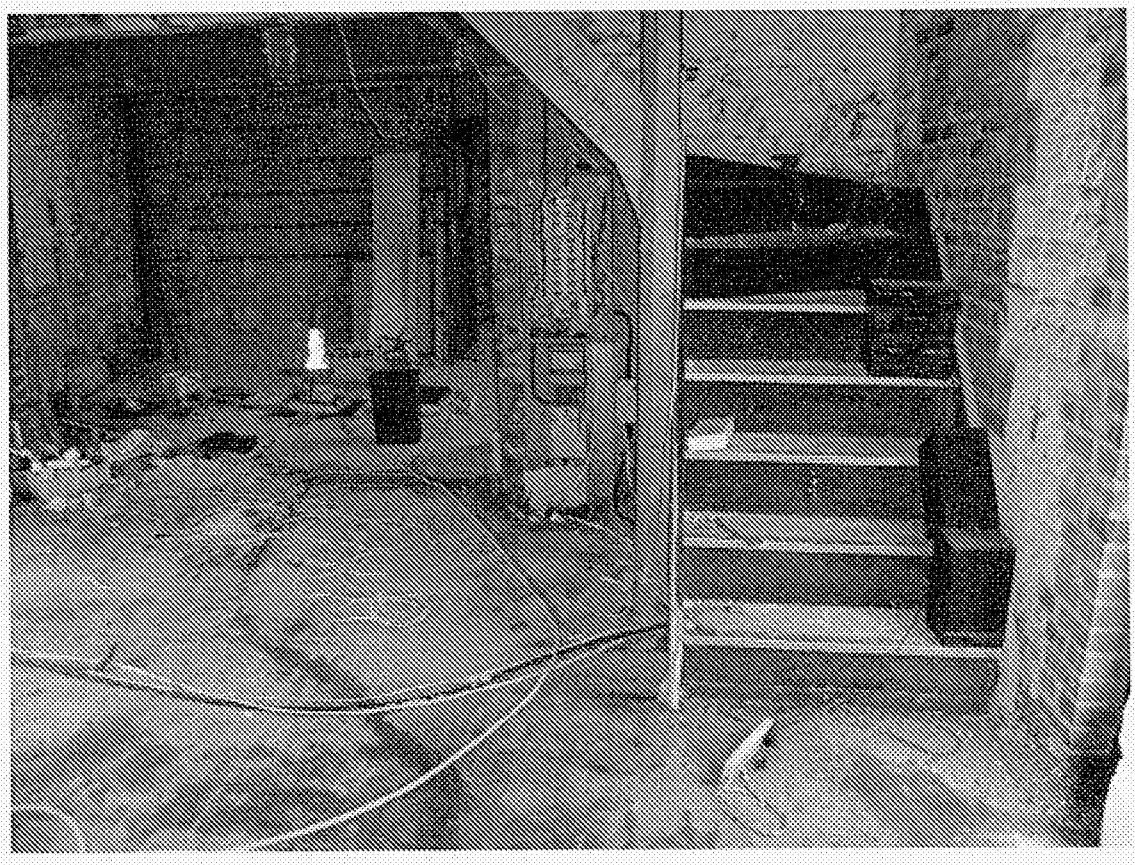


Remove first floor, flooring boards along with timber joists to enable the existing inbuilt timber wall plate to be removed along with the timber lintels over windows (replace window lintels as previously described). Renew timber joists with new 225 x 50 sawn built into flank walls. The original support timbers are to remain in the positions as a decorative feature, along with bridal pegs attached.

Floors to be reclaimed pine boarding, with sanded and polished finish, the floor construction to be installed to current building regulation for transference of sound. Walls to remain exposed face brickwork and flint work were new partitions and dividing rooms are to be formed, all walls will be constructed with studwork and plasterboards independent of the walls so as to preserve the original brick and flint work behind.

3.4 Servery Area

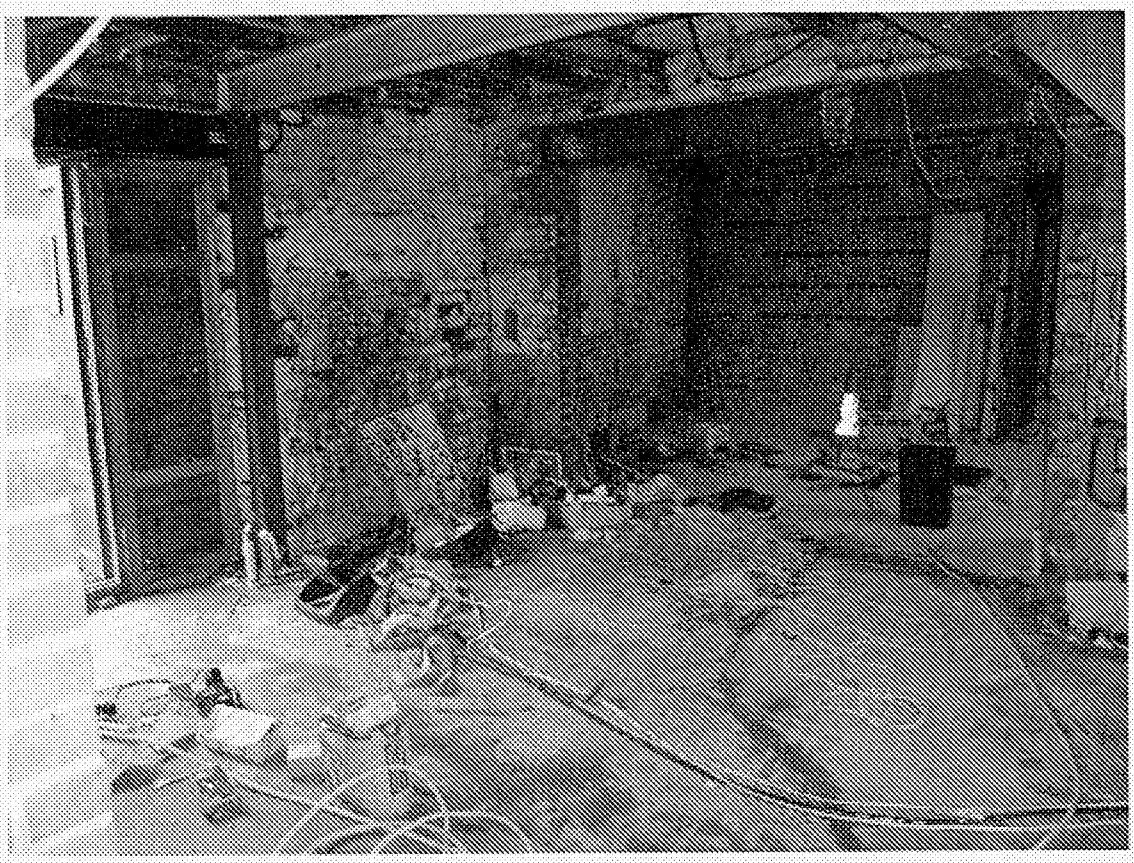
Existing stairs circa 1995 to be removed and disposed of, new stairs to be provided in new location as indicated on drawing 091/P/047/04.



Redundant electrical services are to be removed; new separate electrical services are to be provided to all dwellings independent of each other.

All ground bearing concrete floors will be over laid with fully insulated floating floors to comply with the current building regulation for thermal insulation.

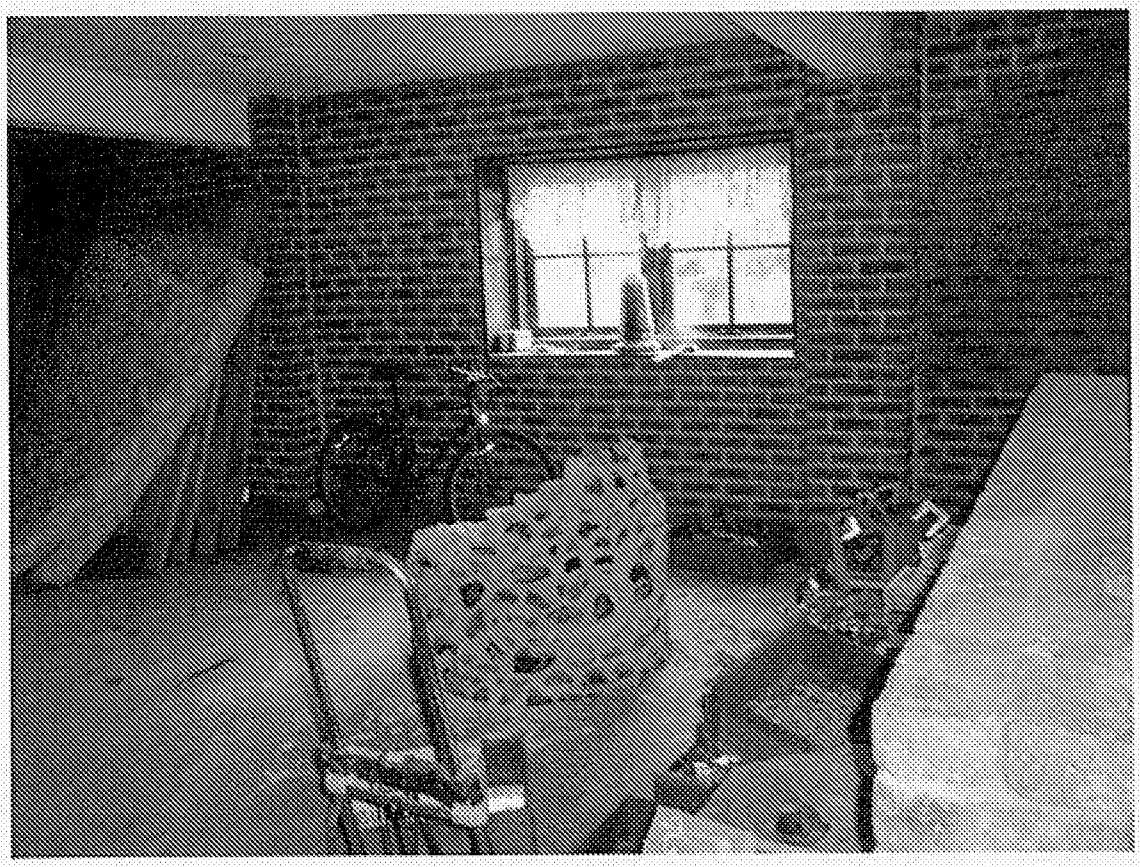
Internal foul drainage chambers are to be removed as far as practical, the new foul waste water under ground drainage is to be designed to wherever possible elevate internal manhole chambers.



Steel Beams

Existing steel beams circa 1989 are to be removed and replaced with new built in floor joists (as previously described) the Gable steel support is to be removed along with the Gable wall.

Separating wall between dwellings to be surface lined to provide appropriate fire and sound insulation to the current building regulations



3.5 **Well Room**

Ceilings

3.5.1 Remove ceilings circa 1989, flat roof and steel supports, erect new timber framed pitched 45 degree trussed roof to match in with the tearoom pitched roof maintaining the ridge line parallel with the eastern boundary wall of the existing structure.

Roof shall incorporate thermal insulation to the current building regulations, tile coverings to be reclaimed clay peg tiles, to match the salvaged peg tiles from the tearoom roof.

Rooflights shall be Conservation style windows at the locations identified on drawing.

Stair Access Area

3.5.2 Infill redundant circa 1989 stairs with reject bricks, and finish with topping of concrete level with the existing sub structure floor ready to receive thermal installation and flooring.

Floors

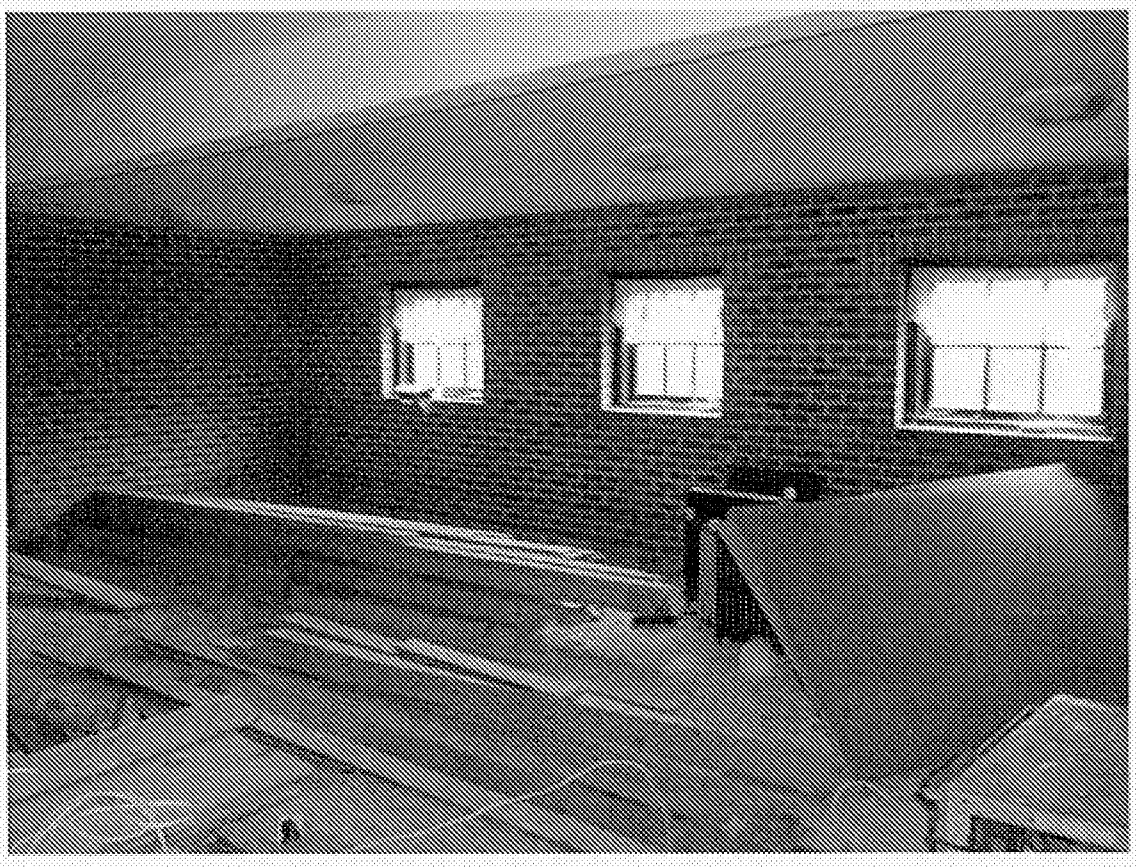
3.5.3 Timber floors circa 1989 to be removed along with supporting floor joists, new floating floor to comprise of thermal insulation 22mm chipboard with salvaged pine waxed and polished boarding over.

Internal Walls

3.5.4 Internal wall surfaces to be left exposed face brickwork to main area, walls to kitchen area to be over boarded, with smooth finish applied, to receive tiled decoration.

Windows

3.5.5 Windows circa 1995 are to be replaced with same style windows to achieve the thermal requirements of the current building regulations.



3.6 **Function Room**

Ceilings

3.6.1 Remove ceilings circa 1989, flat roof and steel supports, erect new timber framed pitched 45 degree trussed roof to match in with the tearoom pitched roof keeping the ridge line parallel with the eastern boundary wall of the existing structure.

Roof

3.6.2 Roof to incorporate thermal insulation to the current building regulations, surface coverings to be reclaimed peg tiles, to match the salvaged peg tiles from the tearoom roof.

Windows

3.6.3 Roof lights shall be provided by Conservation style windows at the locations identified on approved drawing.

Floors

3.6.4 Timber floors to be removed along with supporting floor joists, new floating floor with thermal insulation and pine polished boarding to be fitted.

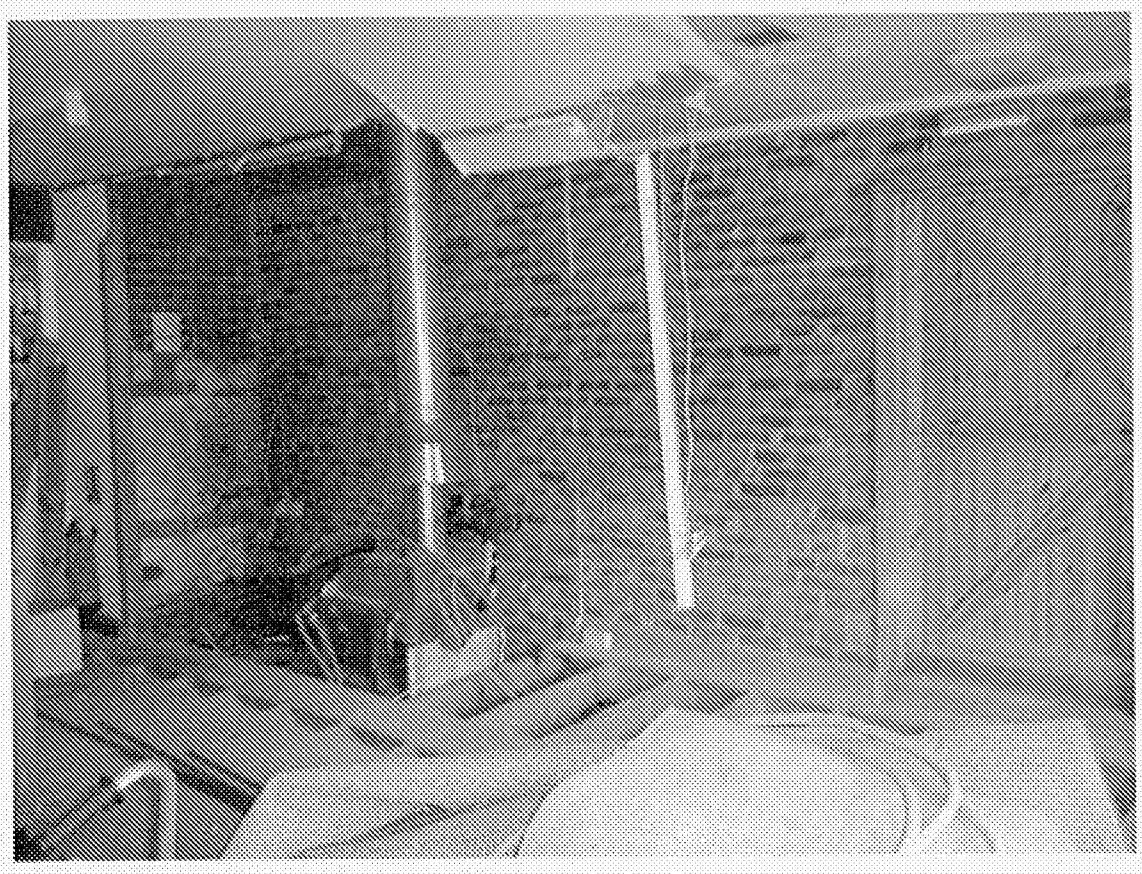
Internal Walls

3.6.5 Internal walls to be left exposed to main area, were new walls are provided for cloak room and stair enclosure these will be smooth finish plaster

Windows

3.6.6 Existing circa 1995 external windows are to be replaced with same style windows to achieve the thermal requirements of the current building regulations.

3.7 Museum Room



Ceilings

3.7.1 Remove ceilings, flat roof and steel supports, erect new pitched 45 degree trussed roof to match in with the tearoom pitched roof keeping the ridge line parallel with the eastern boundary wall of the existing structure.

Roof

3.7.2 Roof to incorporate thermal insulation to the current building regulations, surface coverings to be reclaimed peg tiles, to match the salvaged peg tiles from the tearoom roof.

Roof dormer windows shall be provided at the locations identified on drawing, the dormers are have tile hung cheeks to match the dormers on the tearoom

External Walls

3.7.3 Circa 1995 External walls to be carefully removed, all bricks cleaned and set aside for reuse, foundations to be inspected and increased were required, new walls to be constructed from the set aside bricks.

Windows

3.7.4 New windows to incorporated as indicated on drawing

Floors

3.7.5 Timber floors to be removed along with supporting floor joists, new floating floor with thermal insulation and pine polished boarding to be fitted.

Windows

3.7.6 Internal walls to be left exposed to main area, were new walls are provided for cloak room and stair enclosure these will be smooth finish plaster

Doors

3.7.7 Existing circa 1995 external window is to be replaced with same style window to achieve the thermal requirements of the current building regulations.

New external entrance door to be provided as indicated on drawing , the style of the door to match the doors on the tearoom.

Barnham Tower Mill

3.8 The Tower Mill

3.8.1 The tower mill consists of four floors held within a flint and brick tower, which is rendered on the outside and finished with a traditional tar based coating.

External Elevations

3.8.2 The tower has suffered from water penetration over the years, this is the result of the tar coating wearing off over the years and cracking occurring in the cement render which is being caused by the deferential movement between the flint lime mortar structure and the hard sand and cement render that has been applied to the external of the tower.

To address the water penetration and minor cracking that has occurred over the years we propose to carefully cut out the cracks to 20mm in the sand and cement render, apply a flexible cementations product (ronafix or similar) and provide a new traditional tar based coating.

External Gallery

3.8.3 The external walk around Gallery that was erected in 1997 has been removed in accordance with in the Grant of Planning Permission.

Lead Cap

3.8.4 The lead cap of tower to be prepared, a mullions solution applied and painted with exterior quality white paint to retain the architectural style, the historic character as described in the book Windmills of Sussex.

Finial

3.8.5 The finial is to be rubbed down a mullions solution applied and painted in exterior quality red paint to keep the historic character as described in the book Windmills of Sussex.

Fan Stage

3.8.6 The fan stage is severely decayed and will be reconstructed in timber of similar profile and characteristic, the fan is to be taken down and refurbished and will be replaced in a skeleton form, to permit allow the wind to blow through and reduce the risks of future wind damage.

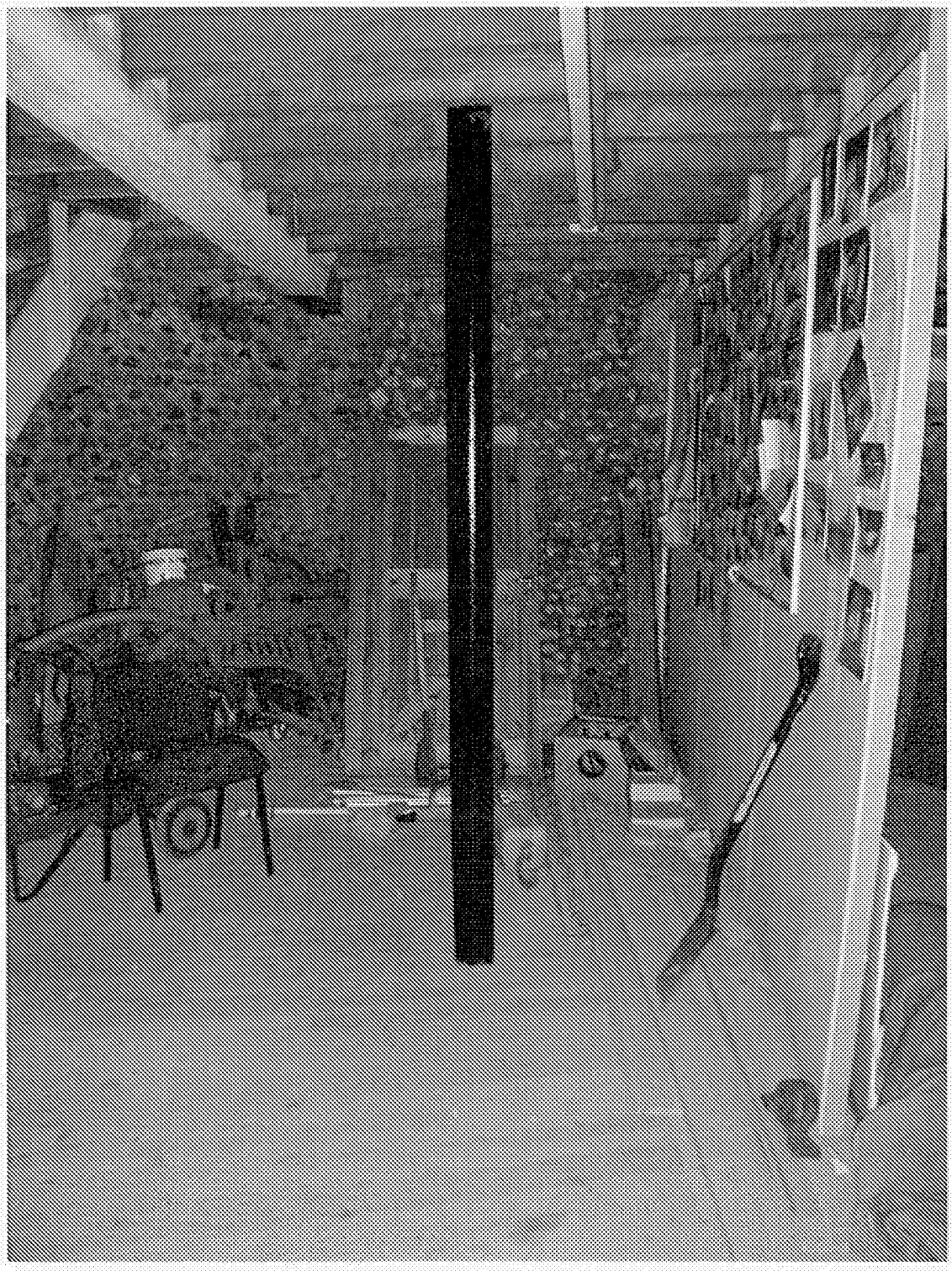
By permitting the wind to blow through the fan will also alleviate the structural stresses on the main flint and rendered structural tower.

The small lower machinery access platform erected in 1999 to facilitate the installation of the worm drive is to be removed, along with the redundant worm drive and drive gearing

30 MAY 2012

Fans not finished yet. Should be completed June/July.

3.9 Interior of the Tower Mill



Walls

3.9.1 The walls internally have already been stripped of the lime putty plaster to allow the lime mortar to dry out and a visual inspection of the tower mill structure to be undertaken.

The inspection has identified some areas of minor deterioration to the lime mortar and flint / brick areas.

To address these minor areas of deterioration we propose to locally cut out the defective flint / brickwork, and replace with new flint / brickwork bedded in lime mortar.

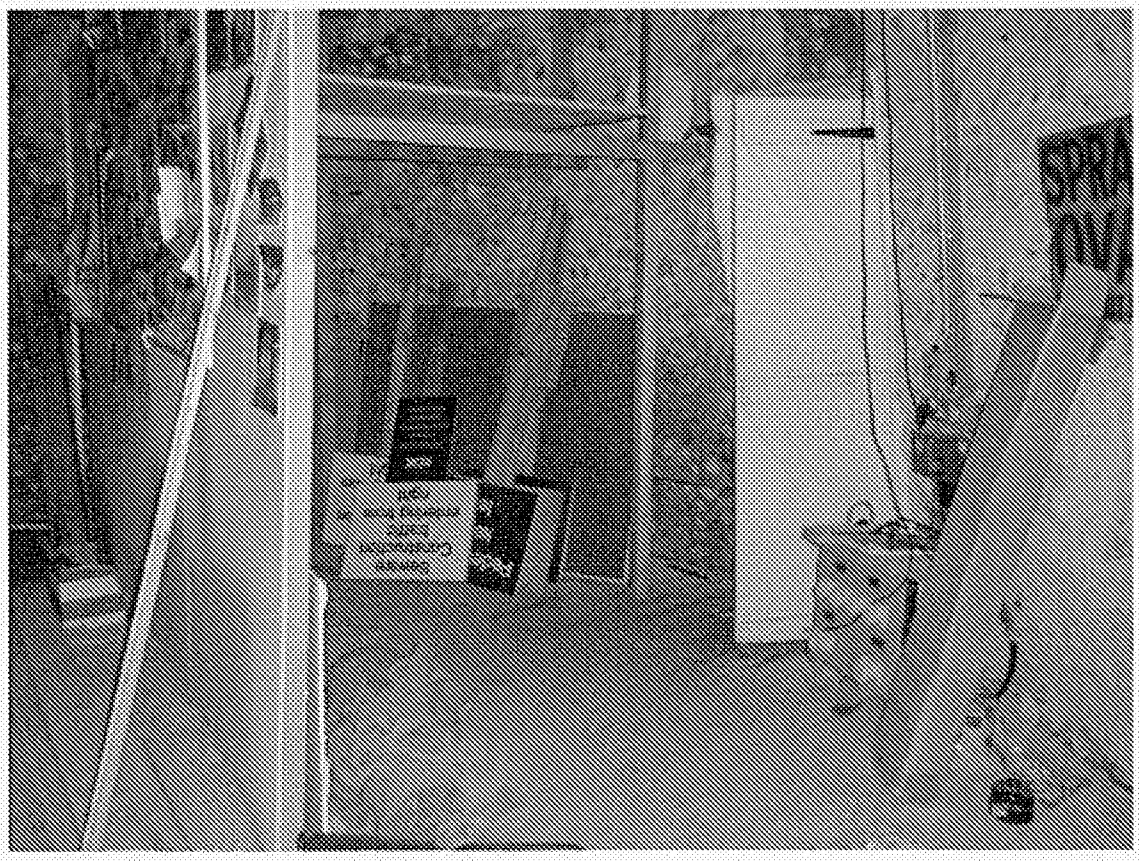
Internal Finishes

3.9.2 On completion of these repair works we propose to protect the existing flint / brick finishes by carefully applying a high density (HDPE) John Newton & Co or similar membrane to the internal fabric of the structure to alleviate any further passage of water ingress into the proposed habitable tower.

To erect an independent Gyproc stud wall in front of the HDPE membrane, thermal insulation shall be installed between the metal studs to provide thermal insulation.

Ply sheeting will be fixed to the metal studs, then plasterboard fixed to the ply, and completed with a plaster skim coat finish ready to receive decoration.

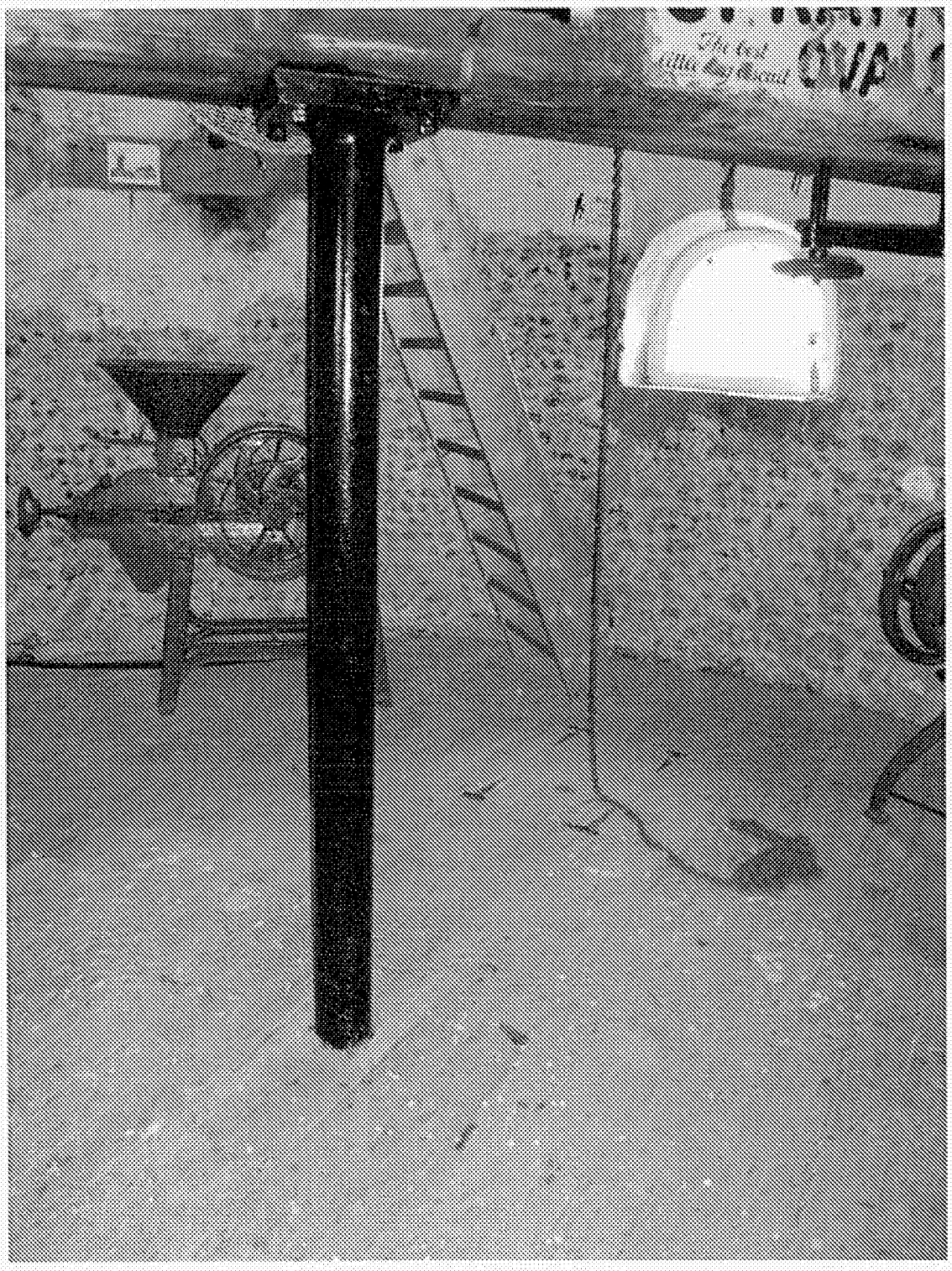
3.10 Ground Floor of Tower Mill



Internal Partitions

3.10.1 All temporary partitions are to be removed, all flooring to be taken up, a new floating floor to be installed with insulation.

3.11 Spout Floor



Stairs

3.11.1 The stairs circa 1989 leading from the ground floor to the spout floor are to be removed and replaced with traditional wrap around stair including half landing for ease of access; the stairs are to be fully enclosed to meet Building Control requirements for half hour fire resistance.

The stairs circa 1989 leading from the spout floor to the stone floor are to be removed and replaced with wrap around stair including half landing for ease of access; the stairs are to be fully enclosed to meet Building Control requirements for half hour fire resistance

The stairs circa 1989 leading from the spout floor to the bin floor are to be removed and replaced with wrap around stair including half landing for ease of access; the stairs are to be fully enclosed to meet Building Control requirements for half hour fire resistance

Doors

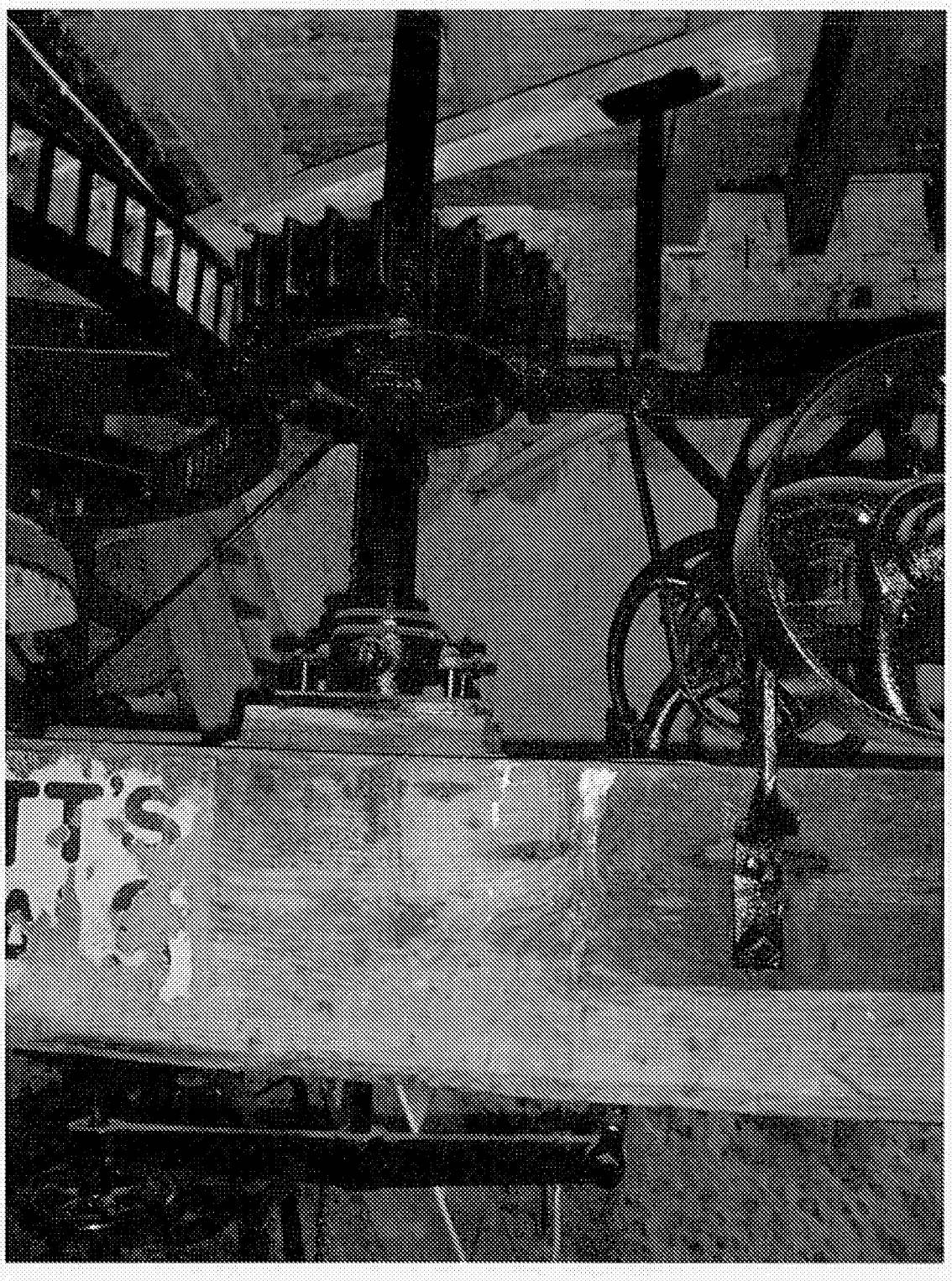
3.11.2 The two doors circa 1989 leading from the spout floor to the redundant (removed) gallery, one door to be removed and replaced with full height window, with opening lights, the second door to be replaced with new exterior purpose made timber door to allow access onto the enclosed roof area.

Windows

3.11.3 All windows in the tower are to be removed and replaced with purpose made timber double glazed units to match the existing profile and pattern of the windows already in the tower Detail? Existing and proposed.

3.12 Retained Machinery

3.12.1 Machinery to remain in the tower will be carefully prepared and painted, all timbers will be brushed off, prepared, waxed and polished, the floors and timber joist shall be removed, prepared, waxed and polished.



3.12.2 The tentering gear and auxiliary drive belt pulleys shall be prepared and painted and retained in the same positions.

3.13 Windmill Cap

Wheel & Shaft

3.13.1 Prepare and decorate brake wheel and shaft, all truck wheels and fixing brackets.

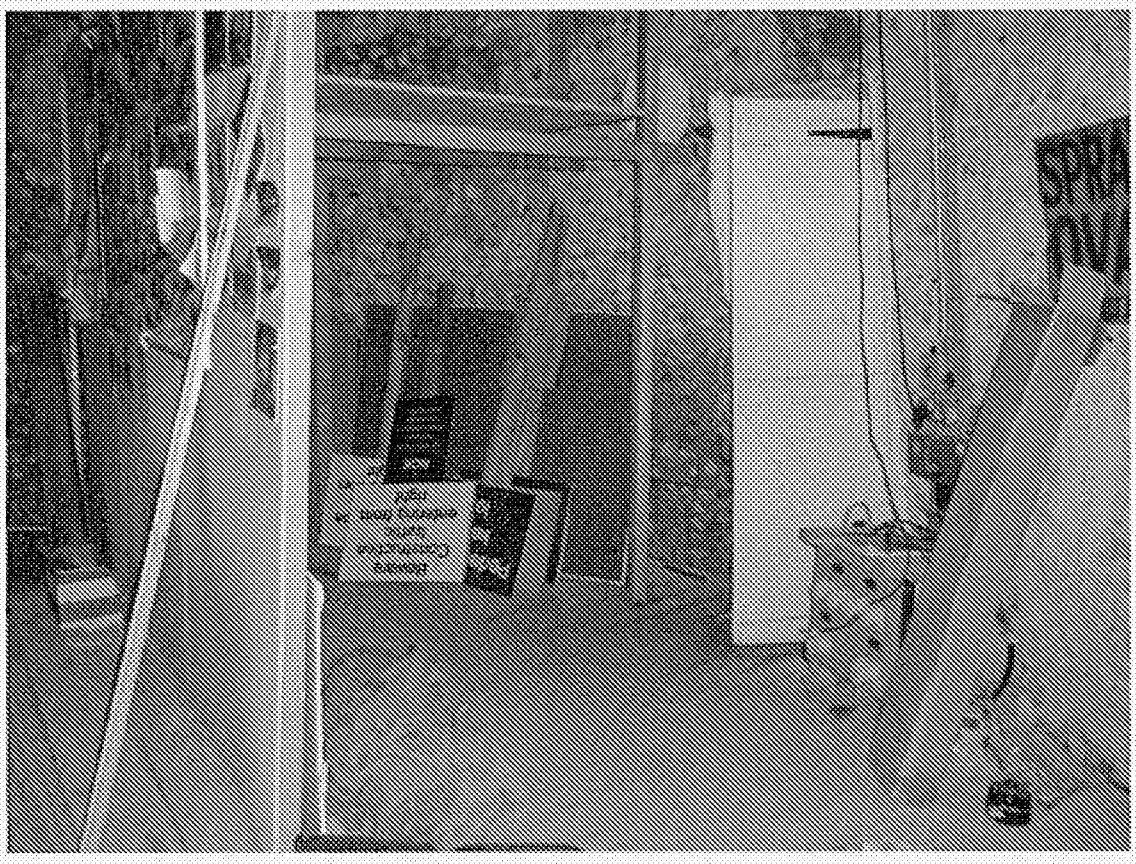
Exposed Timbers

3.13.2 Prepare all timber, wax and polish.

Domed Cap

3.13.3 Provide insulation to underside of domed cap, over board with plasterboard; fix false spare roofing timbers steamed to shape for authenticity.

3.14 Ground Floor of Tower Mill



SURVEYOR:

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WIC McAndrew BSc FRICS ICIOB
Chartered Building Surveyor

For and on behalf of McAndrew Martin Partnership
Tel: 023 9221 0340

Dated this 9th Day of June 2009

APPENDIX A
SECTION 106 AGREEMENT DATED
24TH FEBRUARY 2009