



Note: For Details of Existing Plan see Drawing No HK 2191/SK 013

For Proposed Repairs see Drawing No HK 2191/SK 037 Detail No 2

Line of Existing walls and partitions

150x50 extg secondary joist to be bolted to trimmer

Hearth

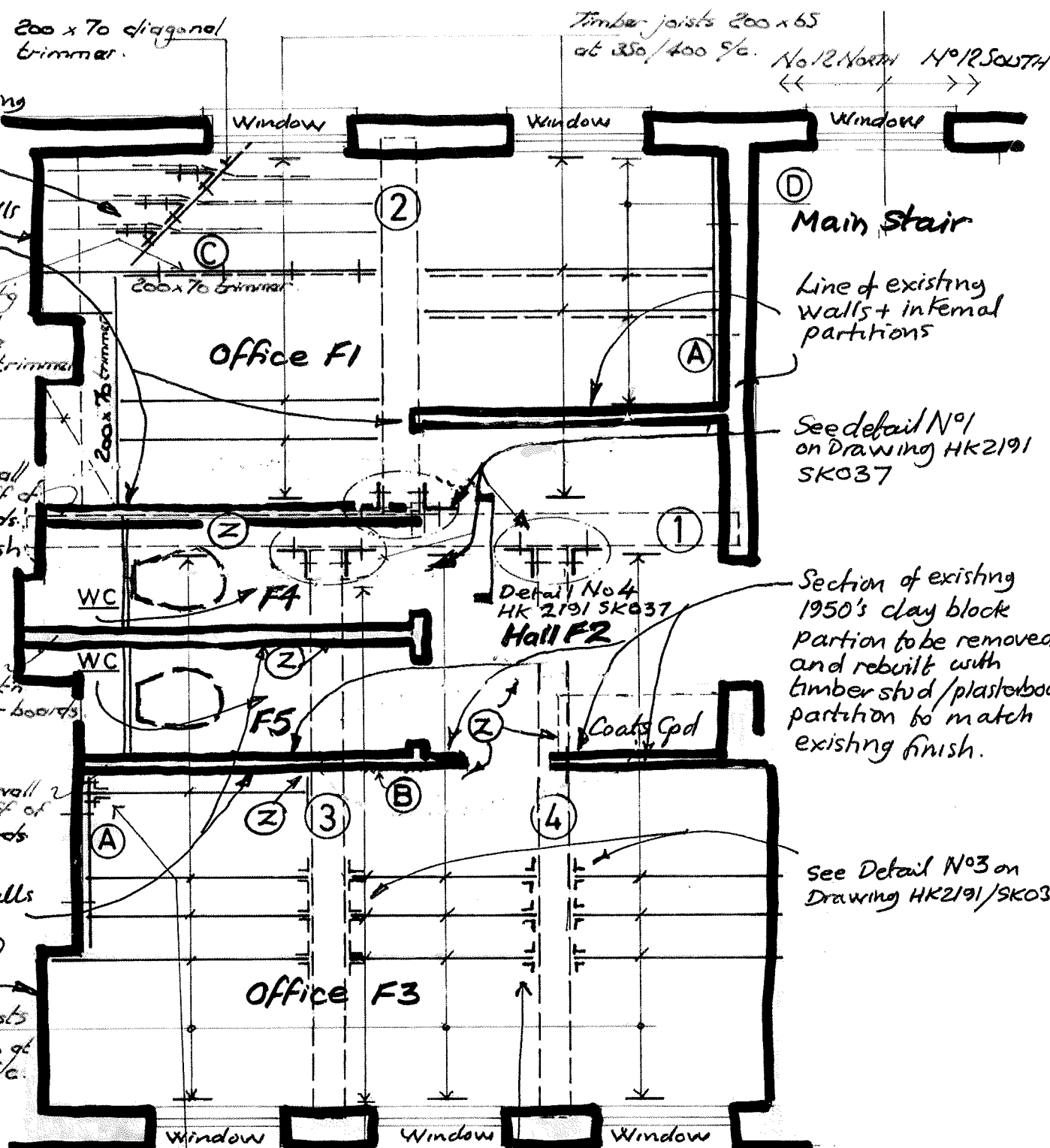
'Clay Pot' wall const'n off of floor boards Plaster finish

Blockwork wall const'n off of floor boards

'Clay Pot' wall const'n off of floor boards

Line of Existing walls and partitions

Timber joists 210x50/60 at 350/370 5/c



Provide Heavy Duty 'BAT' angles to both faces of joist where supported on wall plate (single joist only).

For all incoming floor joists into beam 3 (both sides) provide single 'BAT' angles both faces screwed to joists & beam. See detail 3 Drawing HK 2191/037

No 12 Gray's Inn Square First Floor North  
Floor Repairs + Beam Strengthening  
For The Honourable Society of Gray's Inn  
Floor plan of Structure + Proposed Repairs/strengthening

**GHK ARCHITECTS**  
 Architects · Designers · Historic Building Specialists

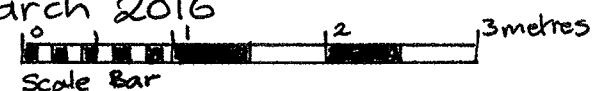
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Drawing No: HK 2191/SK 036

Scale: 1:50 @ A3

Date: 15th March 2016

Drawn: LM



- ① N Refers to central spine bressumer beam, Approx 80mm long term deflection to centre of span. Split along vertical face + shake along top horizontal face - mid span. Proposed Slot system strengthening by Timber repair specialist Resin and stainless steel rods see (X) on detail No 2 Drawing No HK 2191/SK 037 45mm wbp plywood laminated, glued/screwed to top of beam.
- ② Secondary bressumer beam (310w x 210 deep) with defective full depth section @ approx 400mm from external wall. Pocket of rot through full depth of beam. Decay to be carefully cut out and the hole filled with low viscosity epoxy grout reinforced with stainless steel cross stitching to sound sections of beam.
- ③ Secondary bressumer beam (300w x 220 deep) split along top horizontal face for approx 450mm from external wall. Large notch recesses on vertical faces of beam. Specialist timber repair with connections to joists strengthened with angle brackets as shown on the drawing. Specialist repair to include stitching and filling of face shake and split end of beam adjacent to external wall
- ④ Secondary bressumer beam (300w x 220 deep) split full length along vertical face aligning with incoming joist tenons Bearing end to central spine beam ① badly split and notched IN NEED OF URGENT REPAIR TOGETHER WITH REPAIRS TO THE CENTRAL SPINE BEAM. This beam to have Specialist timber repairs with stainless steel stitching/cross stitching all splits/shakes and joints resin filled Additional strengthening angles as shown on the drawing all to be carefully carried out by Timber treatment specialists.
- A Denotes exposed wall plate (possibly circa 1950's repair) supporting joists with half lap bearing. Allow for 2no M12 resin encapsulated bolt fixings for each timber connected into masonry wall.
- B Carefully cut out horizontal plaster fracture if wall (clay block) can be retained. Allow for stainless steel expanded metal lath repair + plaster to match existing.
- C Provide additional galvanised metal strapping as indicated on Detail No 2 Drawing no HK 2191/SK 037
- D Existing joists to have secondary timbers removed (they are nailed to main floor joists) and replace with new 150x50mm treated timber joists supported at bearings and bolted to original main joists. Timbers to be bolted through main joists. (doubled up strengthening)

Note: To carry out slot reinforcement to the central spine beam ① The existing partition between Toilet F4 and Office F1 to be temporarily removed (1950's clay block partition) and rebuilt in 100x50mm Softwood Stud partition, plasterboard + skim finish + 70mm Rockwool insulation batts Toilet finishes to be temporarily removed and replaced to match existing on completion. Finishes ② to be temporarily removed and replaced on completion of Timber treatment specialist repairs/strengthening. Temporary Props to be provided at Ground Floor but finishes + partitions will remain as existing