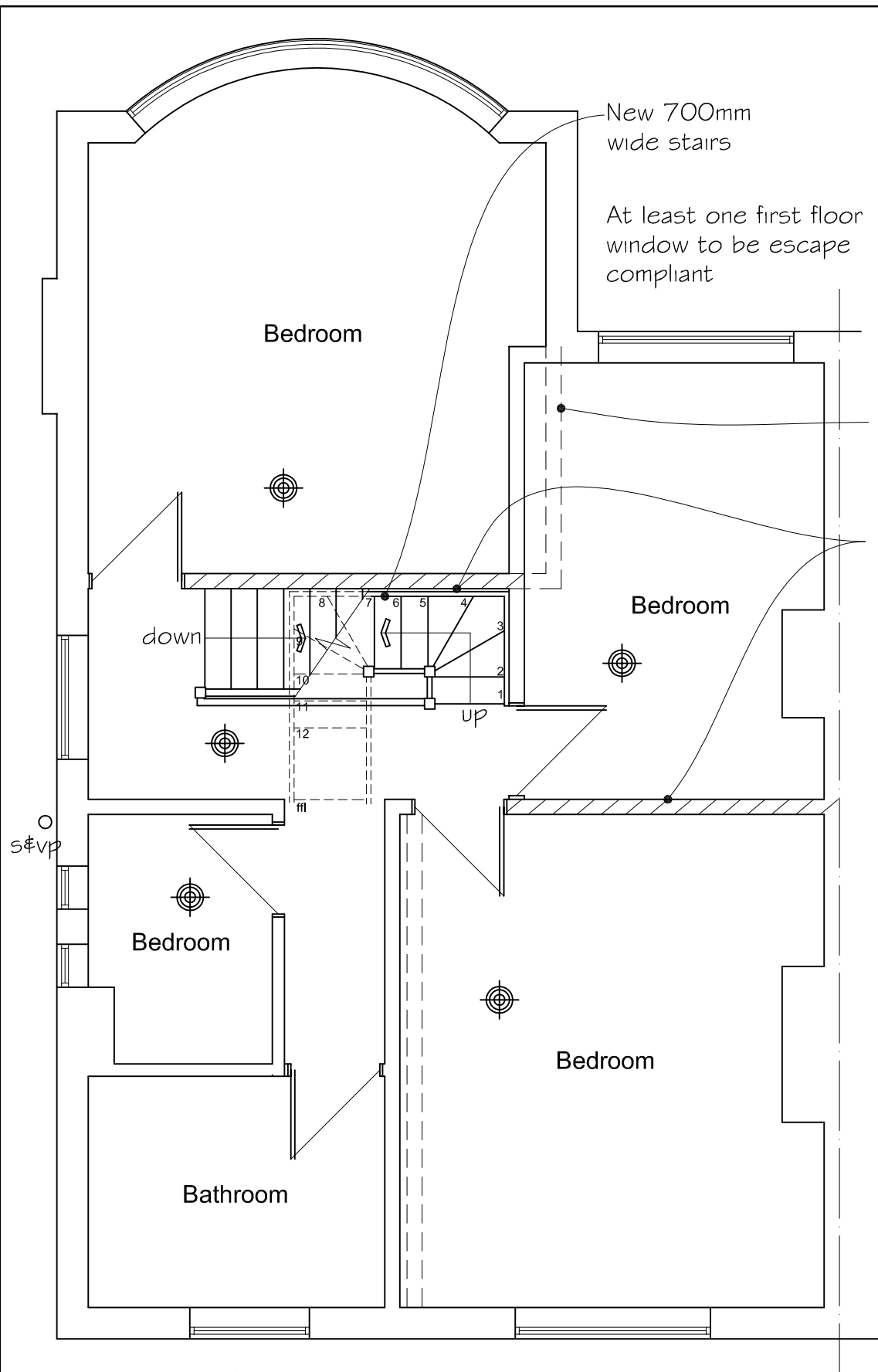


First Floor Plan Existing

Proposed Loft Conversion	
DRAWN BY	PR
SCALE	1:50 & 1:100
DATE	
DWG No.	
CLIENT	

**MAGIC LOFTS LTD**  
Elevate Your Home!



First Floor Plan Proposed

Scale 1:50 at A3



New valley rafter propped to LB wall below

Roof extended to form gable build-up:  
Re-hang existing tiles over new 125x50 rafters @400 crs. (see section for insulation and ventilation)

Dotted lines indicate wall positions at GF level

Load-bearing walls shown hatched thus

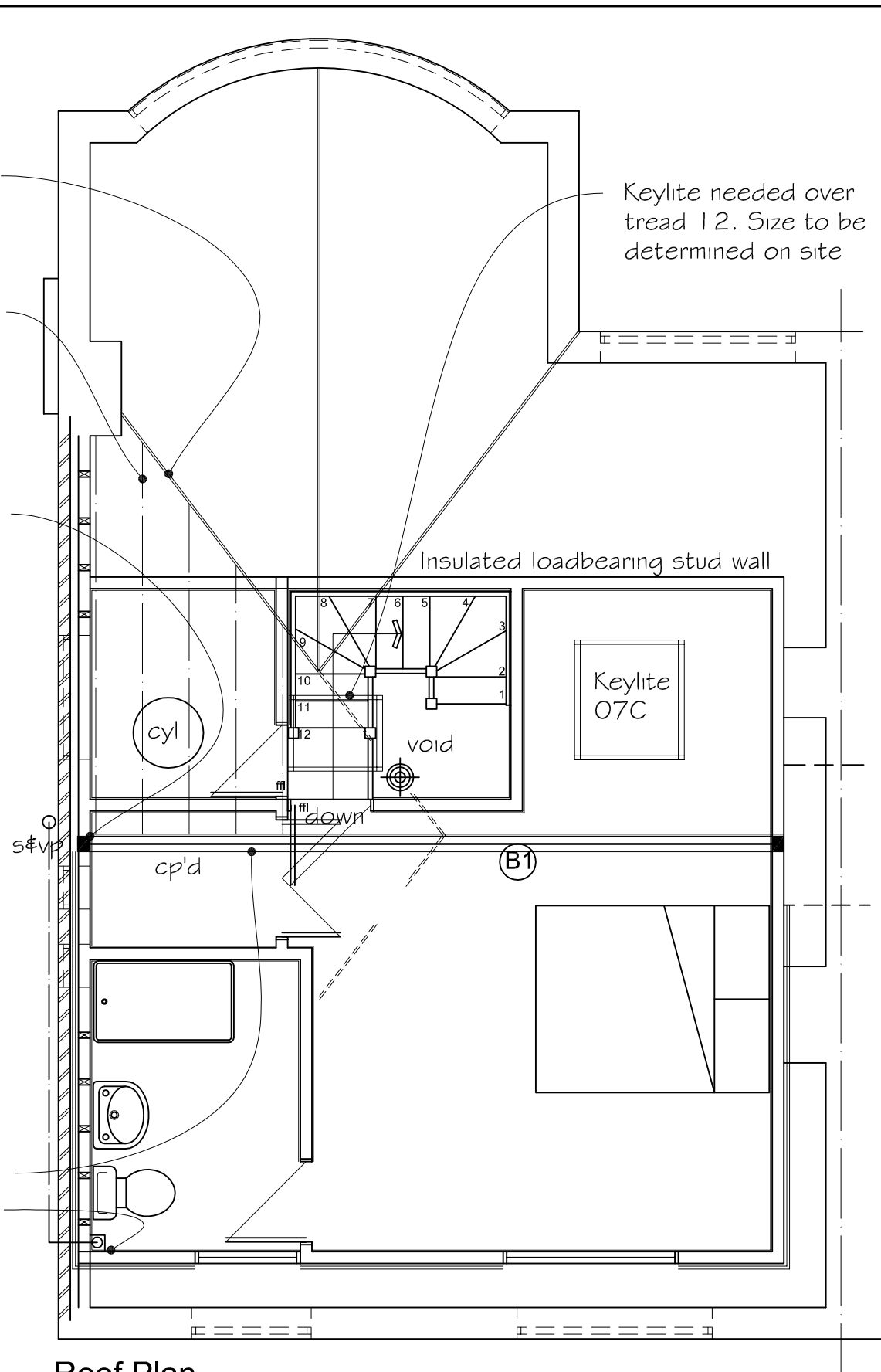
100x100 C16 posts to ridge beam

Gable build-up on 100x50 C16 vert studs at 400 crs with noggins min mid-span, braced with 18mm OSB with breathable paper membrane to outer face. 100mm conc blocks to outer skin tied to inner with galv or stainless steel wall ties spaced 750mm horizontally, 450mm vertically and staggered. External render to match existing. Insulate with 100mm Cellotex between vert studs and "thermaline" boards internally. Secure min 2 nails per vert stud to existing wall plate ensuring adequate fixity of existing wall plate to outer wall (30x5mm galv steel strapping at max 2m crs)

Ridge beam above

Connect waste to existing soil stack. Fit air admittance valve, box-in and ventilate

ⓑ1 203x133x30 UB



Roof Plan Proposed

Keylite needed over tread 12. Size to be determined on site

Scale 1:50 at A3



125x50 rafters laid alongside existing and onto load bearing stud wall - 2.52m max span at 400 crs C24. 50mm Cellotex insulation between rafters with 50mm residual air gap to cold side & multi-foil insulation/vapor barrier to underside of rafters (U= 0.18). Plaster skim finish over 12mm pbd. Trim out for rooflights with double rafters.

New roof not to project above existing ridge

Ventilating ridge tiles min 5000 sq mm ventilation per m run.

150x75 C24 joists at 400 crs

Insulation to vert stud walls, 90mm cellotex between vertical studs, 12mm pbd with skim finish internally.

Provide eaves vents with insect proof mesh equal to 25mm air gap continuous.

Provide 8000 sq mm permanent ventilation to new rooms with "trickle vents" in new window frames (4,000 sq mm to bathroom).

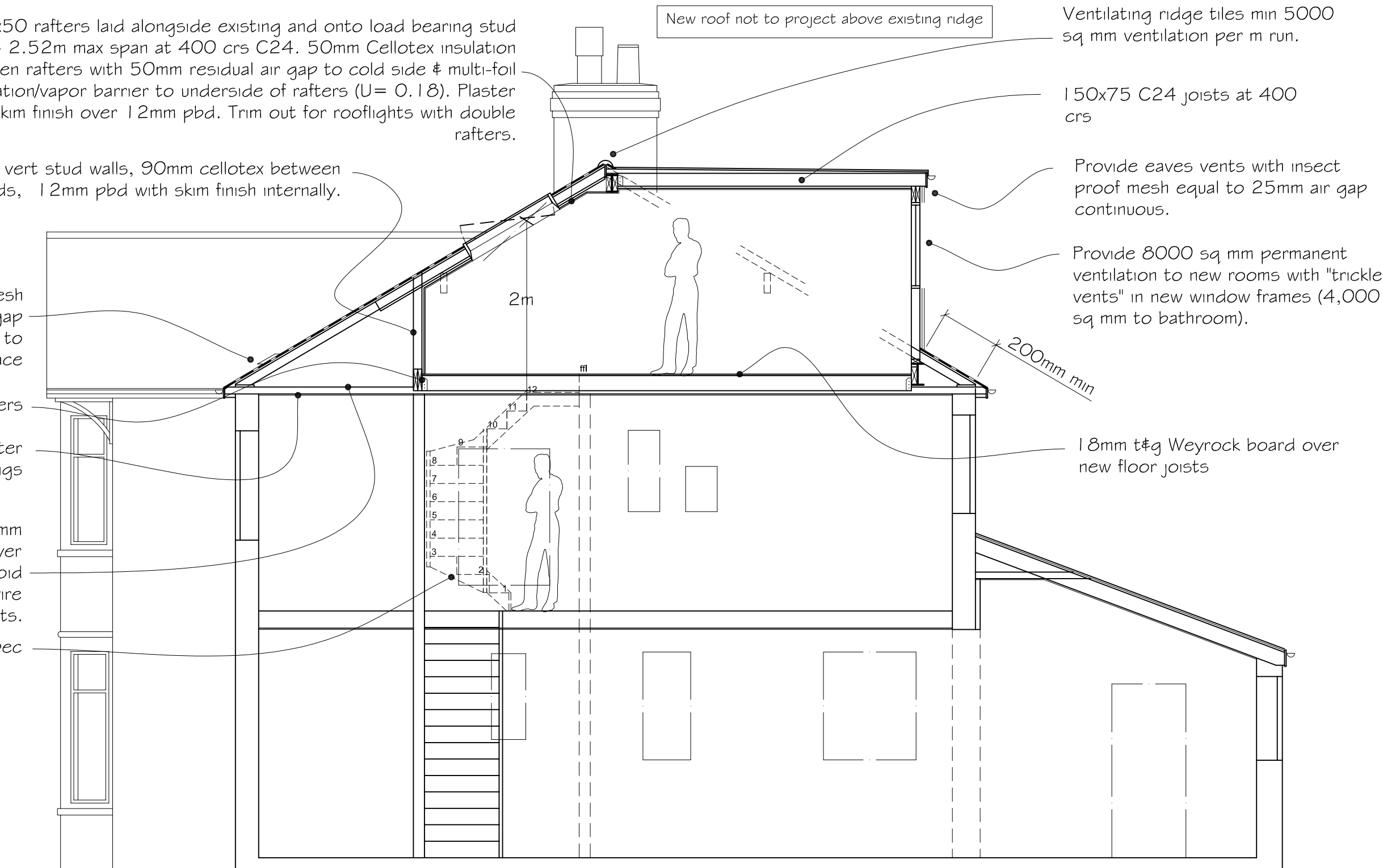
Provide eaves vents & mesh equal to 25mm air gap continuous OR tile vents to void space

Galv joist hangers

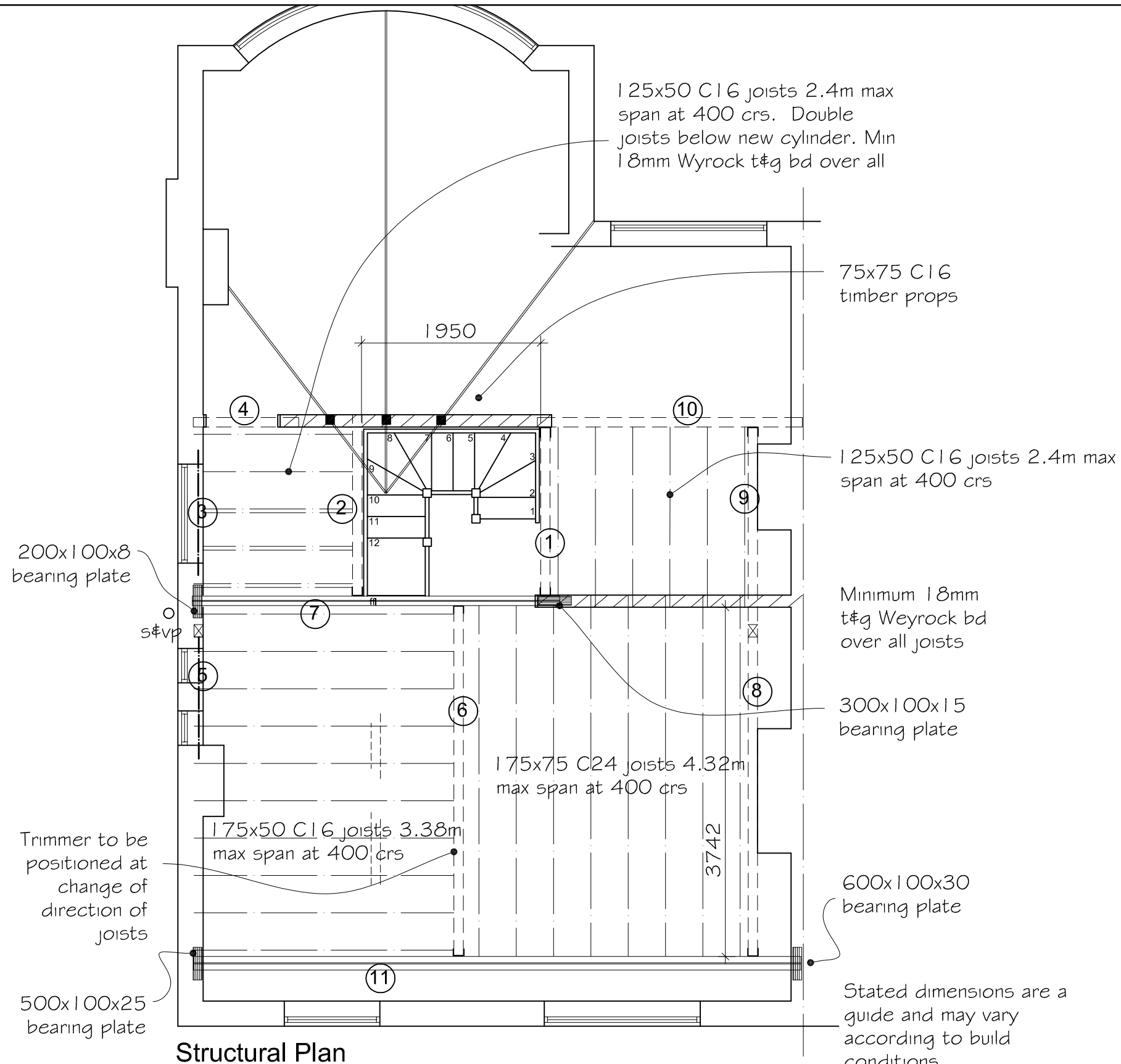
Existing lath & plaster ceilings

100mm between & 150mm mineral wool insulation over and across joists to void areas. Secure with galv wire mesh nailed to joists.

New stair - see spec



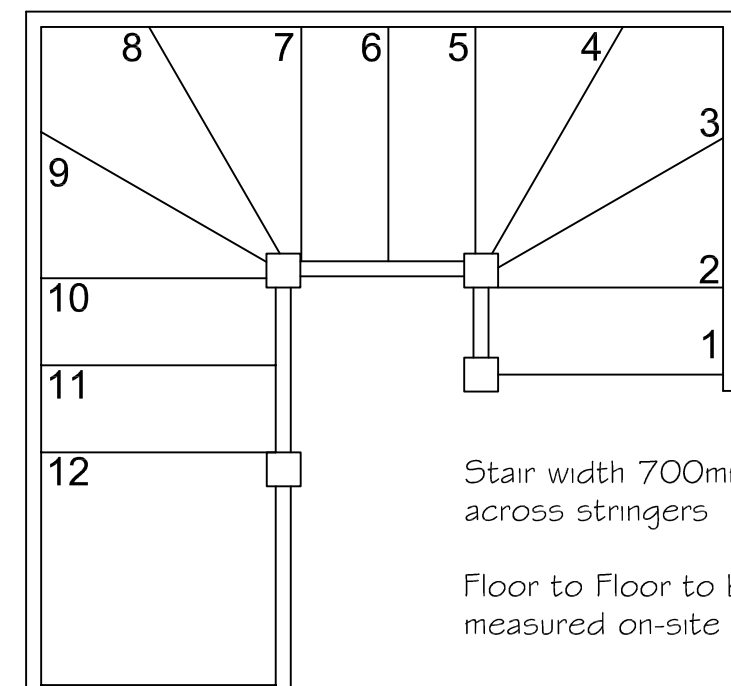
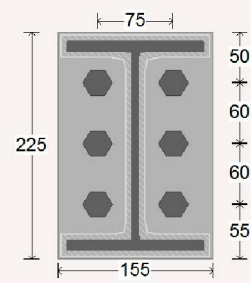
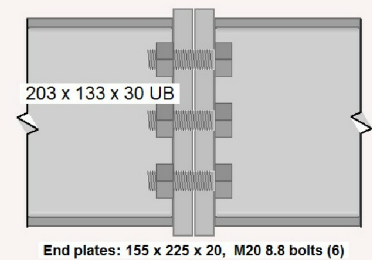
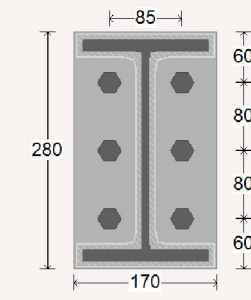
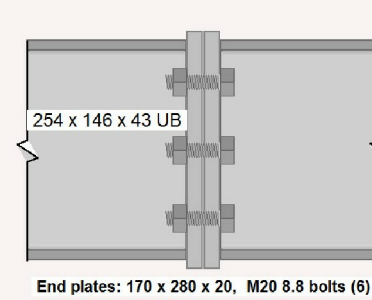
Cross Section



**Structural Plan**

- ① (x2) 125x50
- ② (x2) 150x50
- ③ Catnic insulated lintel
- ④ (x2) 100x50
- ⑤ Catnic insulated lintel
- ⑥ (x3) 175x75 C24
- ⑦ 152x89x16 UB
- ⑧ (x3) 225x50 C24
- ⑨ (x2) 150x50
- ⑩ (x2) 225x50 C24
- ⑪ 254x146x43 UB

Scale 1:50 at A3



Stair width 700mm across stringers

Floor to Floor to be measured on-site



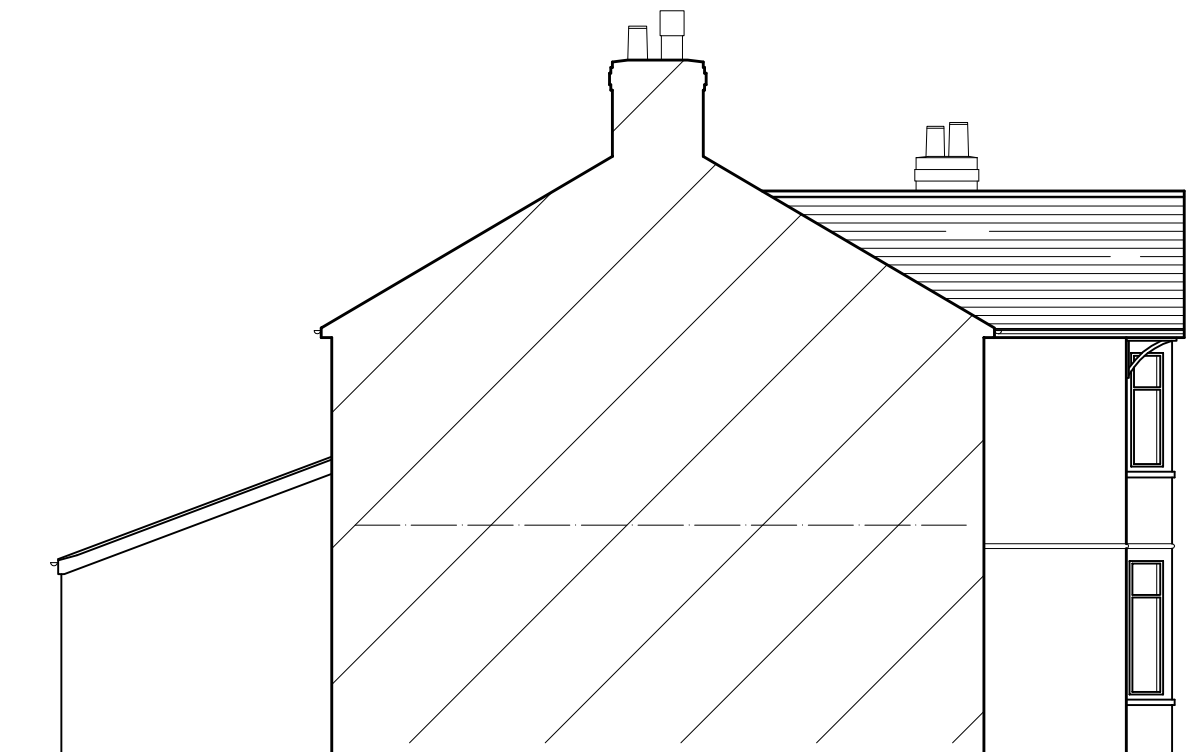
Front Elevation  
Existing



Side Elevation  
Existing



Rear Elevation  
Existing



Side Elevation  
Existing

0 1m 2m 3m 4m 5m

Scale 1:100 at A3

Rooflights will not protrude more than 150mm from roof plane

Volume of new development:  
Rear dormer: 23.76 cu m  
Gable build-up: 14.33 cu m  
Total = 38.09 cu m which is less than 40 cu m allowed



**Front Elevation Proposed**

Ridge line not to be exceeded  
All new materials to match existing.  
Gable build-up to be rendered in matching finish

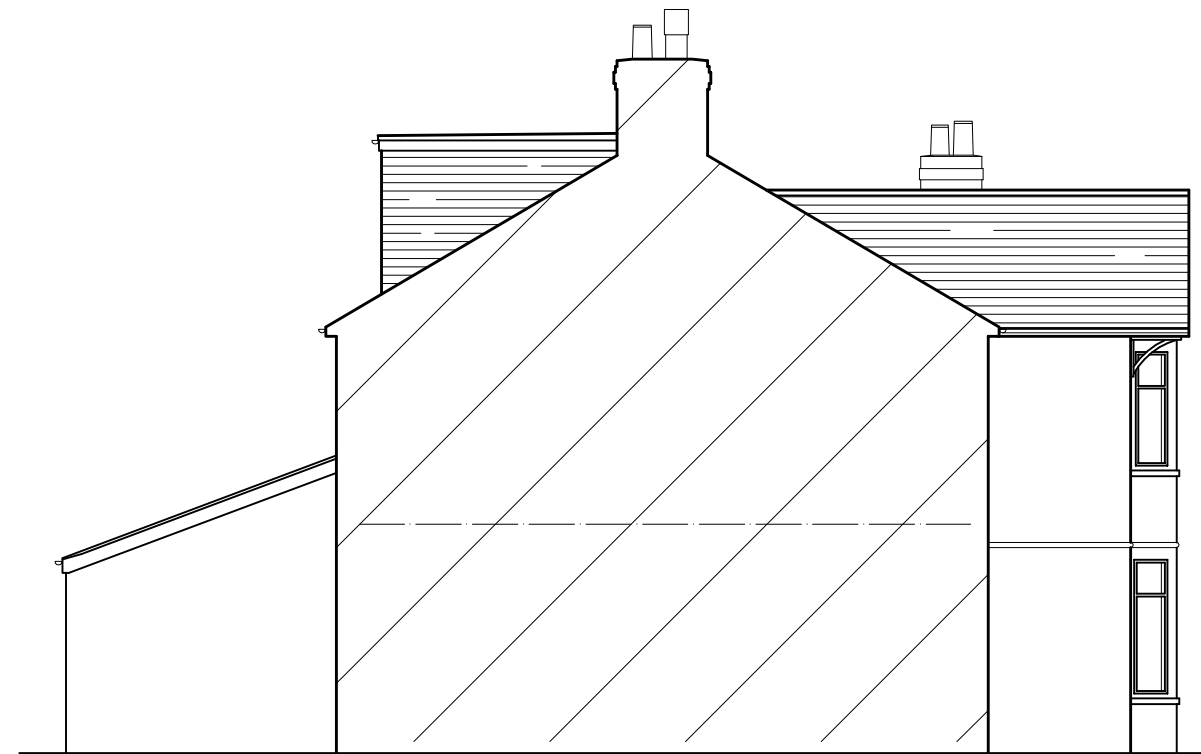


**Side Elevation Proposed**

Dormer to be clad in hanging tiles to match existing roof finish.  
Windows in white upvc to match existing



**Rear Elevation Proposed**



**Side Elevation Proposed**

## STRUCTURAL

Minimum 75mm timber beam bearing. Max thickness of timbers 75mm. Thicker beams to be made up and bolted at 600mm crs with 12mm bolts and 64mm dia toothed connectors. Fitch beams bolted at 300mm crs staggered crs with 16 dia bolts - double up at bearings and either side of point loads. Any protruding beams to be weathered with code 4 lead sheet on exterior ply formers. No structural roof supports to be removed before new permanent or temporary supports are in place. Any cut ties to be made good. Ensure min 19mm clearance between ceiling and floor members. All boundary work to have adjoining owners permission. Existing walls, lintels and foundations carrying additional load to be checked on site for suitability. Builder to check all dimensions before commencement. If in doubt - ask. Floor joists - strut at 1/2 points or 2m max. 18mm t&g bd over (22mm if joists at 600 crs). Cover joists with wire mesh & dress into and across void (for lath and plaster ceilings), fill 100mm Rockwool between ceiling joists.

## FIRE PROTECTION

Coat steel beams with intumescent paint to manufacturers instructions to give 1/2 hr fire protection. Timber beams have 30mins fire resistance to BS5268 part 4 section 41 1078 (sacrificial design method). Doors marked \* to be 30min fire resistant (fd30)

## DRAINAGE

To comply with Part H of the Building Regulations. All waste to existing SVP. WC.100mm diameter, shower & whb 75mm diameter, 75mm deep seal traps to all fittings & cleaning eye to all bends

## DORMER ROOF CONSTRUCTION (U=0.18W/m K)

Fibre glass resin bonded roof over 18mm plywood on 50x50 s.w. battens across firrings (1 in 40) over joists as specified at 400 crs. 100mm Cellotex rigid foam insulation between joists with multi-foil insulation across underside of joists. Min 50mm ventilated air gap to cold side of roof. 12mm Duplex plasterboard with 5mm skim finish below.

## DORMER CHEEK CONSTRUCTION (U=0.28W/m K)

(30 mins fire resistance from both sides). Vertical tile/slate hanging to match existing on s.w. battens on building paper on 12.5mm plywood bracing (9mm masterboard within 1m of boundary) on 100x50 studs at 400 crs. 80mm rigid foam insulation (Cellotex or similar) between vert studs with a further 12mm Cellotex foil-backed insulation/vapour barrier across inside of studs. 12mm pbd and 5mm plaster skim finish internally. Lead soakers externally.

## STAIRCASE 700mm wide

Rise 220mm max, going 220mm min, pitch 42 degrees max. 2m clear headroom above pitch line to new and existing stairs. Handrail 900mm above pitch line and continuous on the side where tapered treads have the greater going. Any tapered treads to have min 50mm going, the same angle of taper and 225mm going at centre of width. No gaps anywhere to allow the passage of 100mm dia sphere. Artificial light with 2 way switch top and bottom. 12.5mm plasterboard to underside of stairs.

## INTERNAL PARTITIONS (To staircase enclosure)

12.5mm plasterboard with plaster skim to each side of min 75mm x 50mm timber studding. 30 mins fire resistance.

## SMOKE DETECTION

Mains powered with battery back-up, interlinked smoke detectors indicated thus  to be provided at every escape route and landing.

## WINDOWS / ESCAPE WINDOWS

Escape windows, min opening area 0.33m<sup>2</sup> and at least 750 x 450mm wide/high and max 1.1m above floor level. All new windows and rooflights to be double glazed with min 16mm gap, low E glass  $\epsilon_n=0.15$  for windows  $\epsilon_n=0.05$  for rooflights. New windows to habitable rooms to be fitted with trickle ventilators min 8000mm<sup>2</sup>.

## VENTILATION

New bath / shower rooms to have mechanical extractor vents min rate 15L per second with 15min overrun.

## ELECTRICAL SAFETY

All electrical work req'd to comply with part P "Competent person scheme" to BS7671. Certification to be provided on completion.

## LIGHTING & HEATING

Minimum 1 in 3 lights to be energy efficient type. Extend existing heating system to new rooms. New radiators to have thermostatic valves fitted.