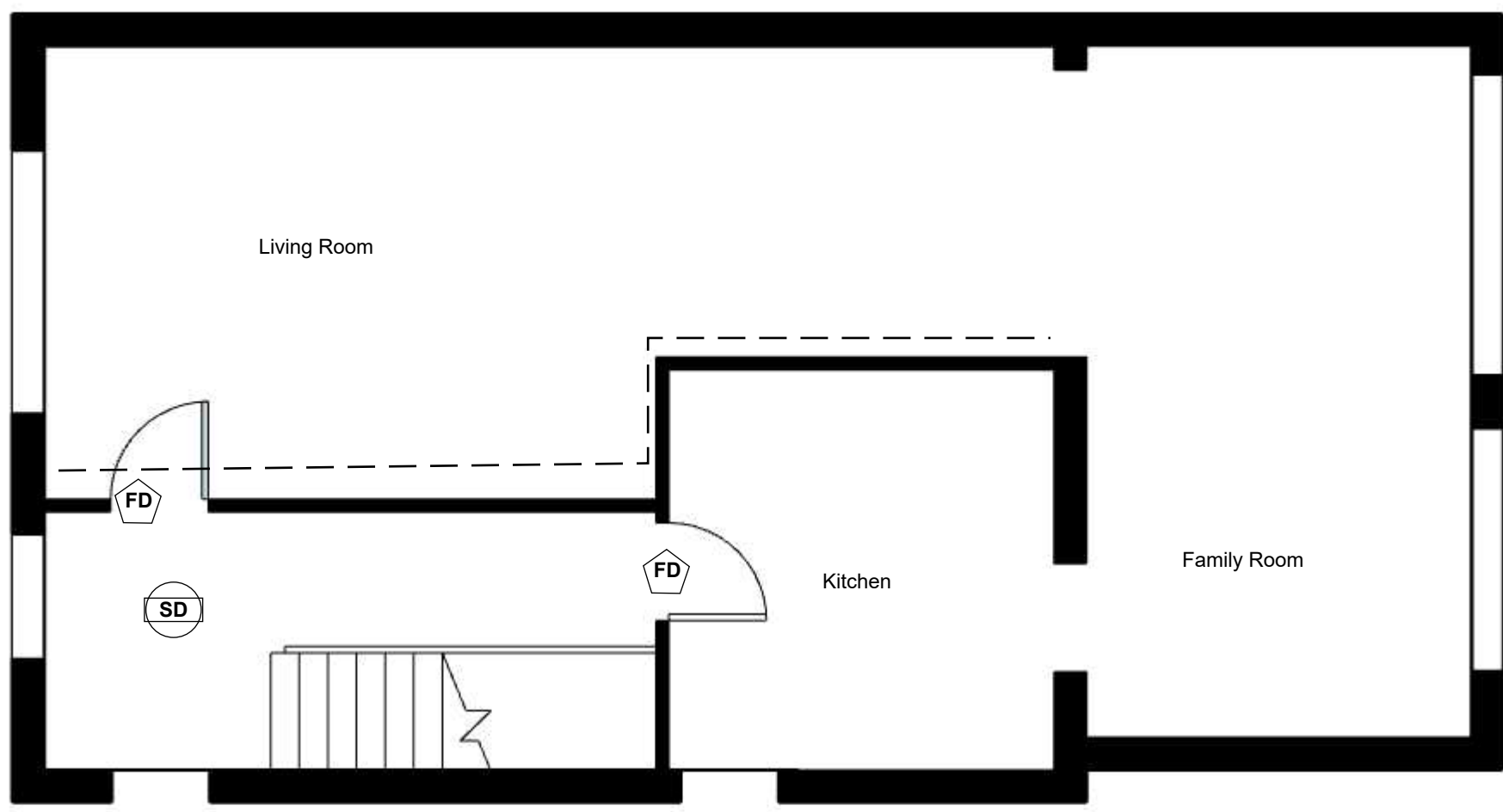




- smoke detector
- Fire Doors: all doors marked FD are to be self closing FD 30 fire doors with 30 minute fire resistance and manufactured to BS 476: Part 2
- 1/2hr rated partitions

All existing internal walls are assumed to be 100mm dense concrete block construction on full foundations. Site investigations are to be undertaken to prove

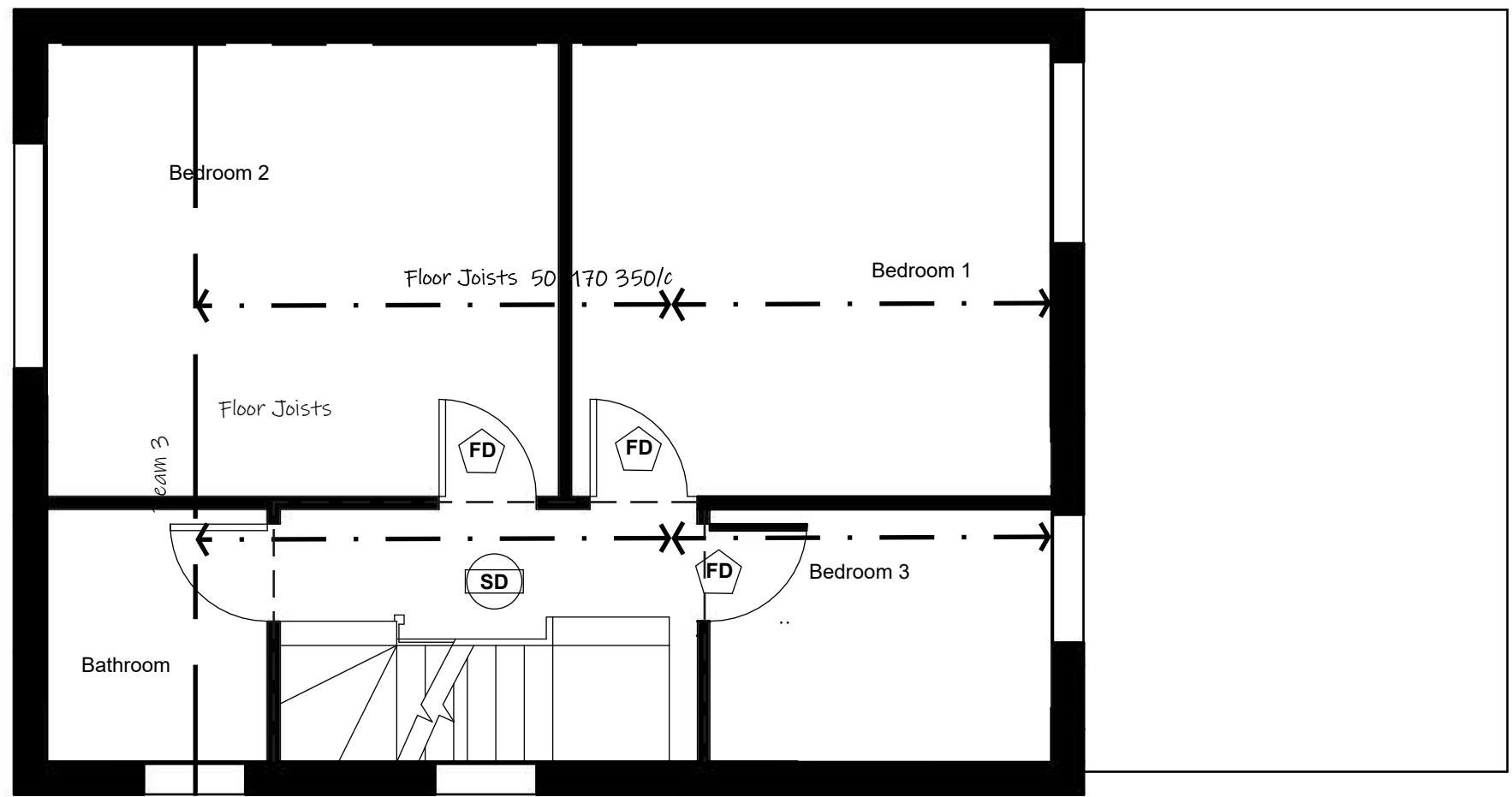
Proposed

Ground Floor  
Plan

A.1

|                                                                                                                                         |                                                                               |                                   |                          |                           |                               |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------|--------------------------|---------------------------|-------------------------------|
| <b>ICAL Consultants</b><br>Trilliums<br>Ashmore Green<br>Thatcham<br>Berkshire<br>RG18 9ER<br>www.icalconsultants.co.uk<br>07769 650780 | <b>CLIENT</b><br>Mr and Mrs Zarrar<br>4 Amberley Drive<br>Twyford<br>RG10 9BY | <b>PROJECT</b><br>Loft Conversion | <b>ISSUE</b><br>MM.DD.YY | <b>DRAWN BY</b><br>NH, MB | <b>PROJECT NO.</b><br>245.170 |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------|--------------------------|---------------------------|-------------------------------|





Gable End Walls / Party Walls  
U-Value achieved minimum 0.30W/m2K  
215mm brickwork  
72.5mm Kingspan Kooltherm K1B with joints  
taped across brickwork and 25x50mm battens  
Ø 600mm c/c fixed through insulation to walls  
with 12.5mm wallboard finish

SuperBeam Project Summary

ITEMS:

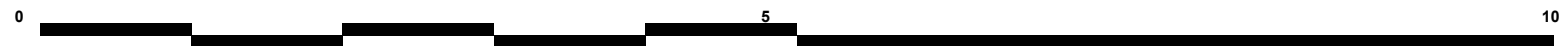
1: Beam: flat roof joists  
Span: 2.9 m. Reactions: R1: 0.68 kN R2: 0.68 kN  
Use 50 x 122 C24

2: Beam: floor joists  
Span: 3.7 m. Reactions: R1: 1.11 kN R2: 1.11 kN  
Use 50 x 175 C24

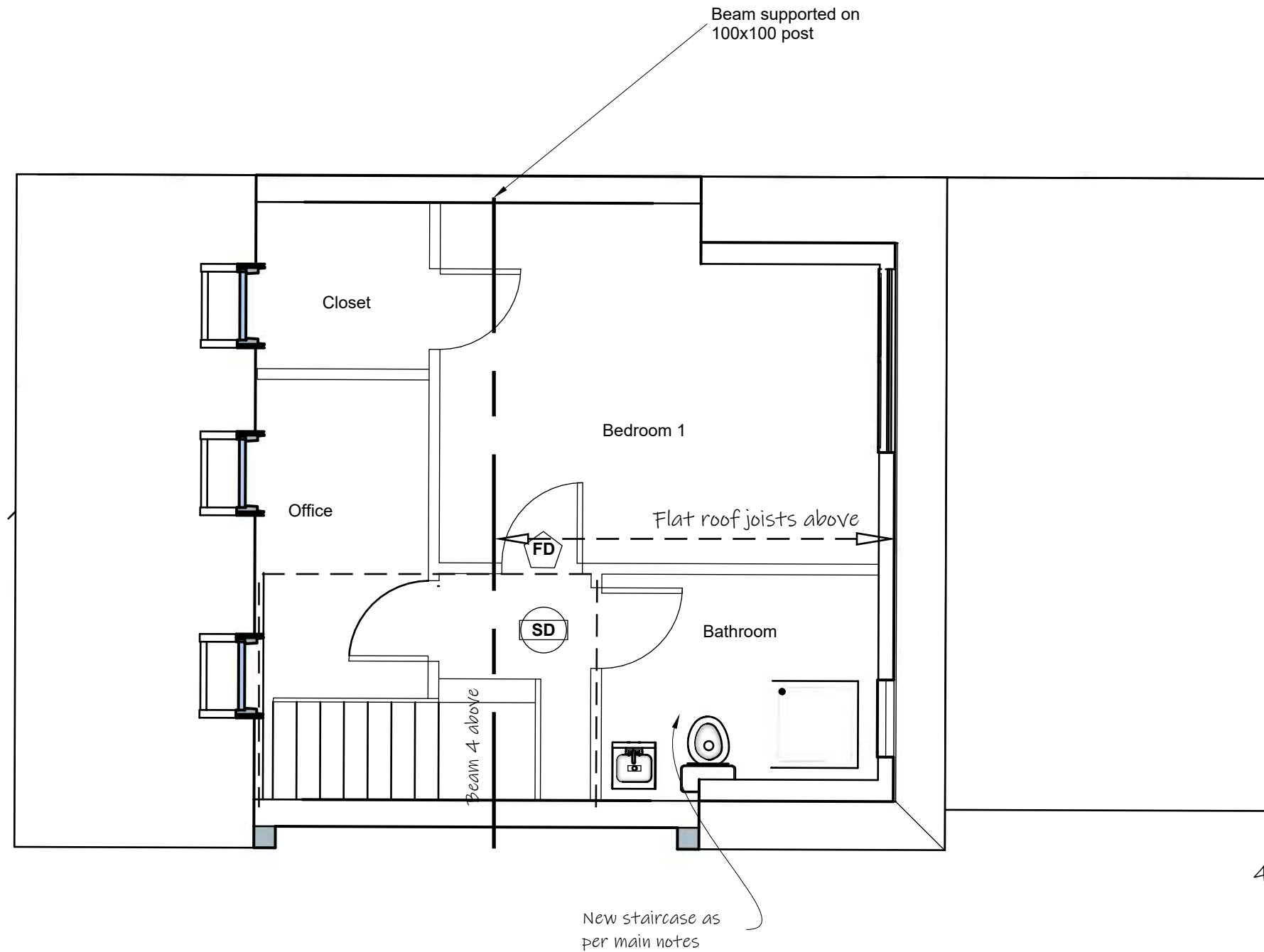
3: Beam: Front floor beam  
Span: 3.5 m. Reactions: R1: 17.26 kN R2: 17.26 kN  
Use 152 x 152 x 23 UC S275  
Bearing R1: 700 x 100 mm padstone  
Bearing R2: As R1

4: Beam: Ridge Beam  
Span: 5.8 m. Reactions: R1: 19.66 kN R2: 19.66 kN  
Use 152 x 152 x 37 UC S275  
Bearing R1: 450 x 100 mm padstone  
Bearing R2: As R1

Scale 1:50



Proposed



## SuperBeam Project Summary

### ITEMS:

1: Beam: flat roof joists  
Span: 2.9 m. Reactions: R1: 0.68 kN R2: 0.68 kN  
Use 50 x 122 C24

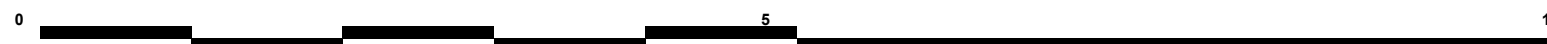
2: Beam: floor joists  
Span: 3.7 m. Reactions: R1: 1.11 kN R2: 1.11 kN  
Use 50 x 175 C24

3: Beam: Front floor beam  
Span: 3.5 m. Reactions: R1: 17.26 kN R2: 17.26 kN  
Use 152 x 152 x 23 UC S275  
Bearing R1: 700 x 100 mm padstone  
Bearing R2: As R1

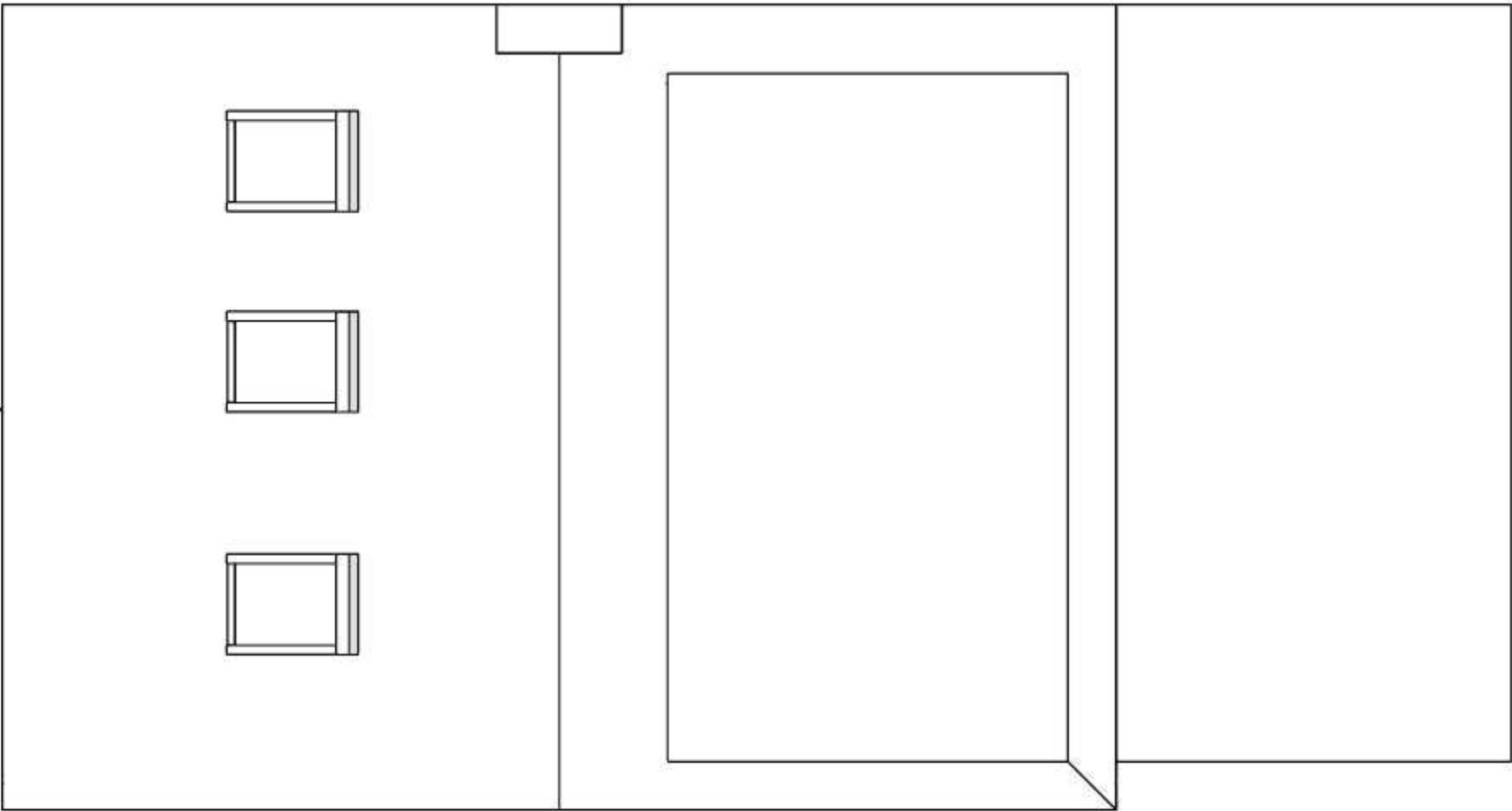
4: Beam: Ridge Beam  
Span: 5.8 m. Reactions: R1: 19.66 kN R2: 19.66 kN  
Use 152 x 152 x 37 UC S275  
Bearing R1: 450 x 100 mm padstone  
Bearing R2: As R1

Internal partitions are to ex  
47x100mm sw studding at 400mm  
c/c with noggins at midpoint,  
12.5mm plasterboard both sides  
c/w 3mm plaster skim, sound batt  
insulation between all to provide  
1/2hr fire protection.

Scale 1:50



Proposed



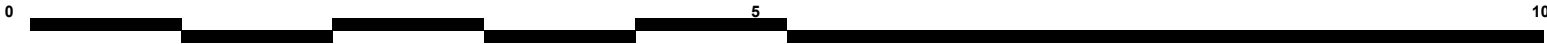
Roof felt to existing roof is to be confirmed as to complying with BS 747 1F reinforced felt.

Existing ridge tiles to be fitted with ventilators to provide equivalent of 25mm continuous ventilation.

Existing fascias and soffits to be provided complete with ventilation equivalent to 25mm continuous ventilation strip.

Existing party wall to be built up tight to underside of existing roof felt to achieve fire separation

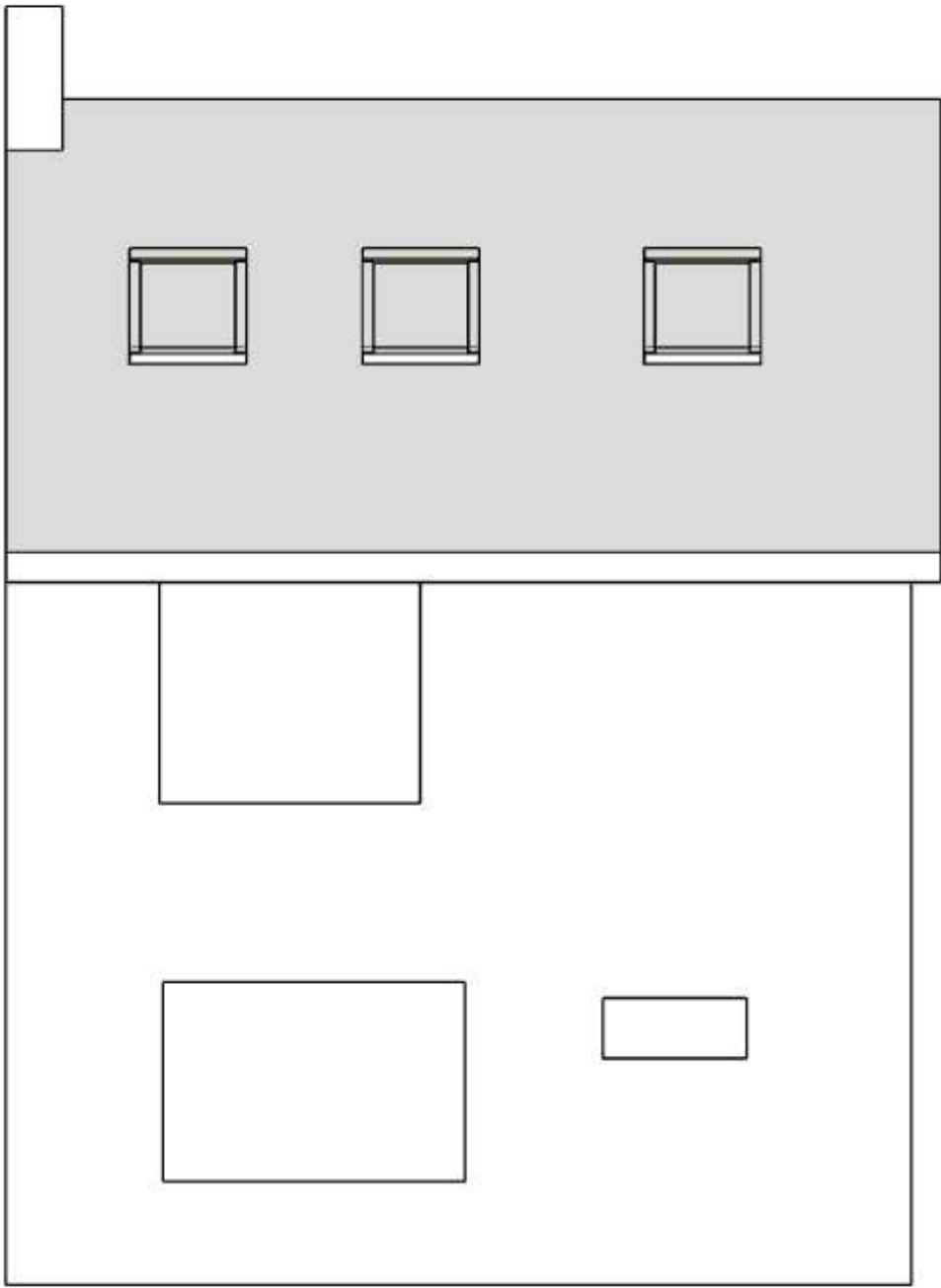
Scale 1:50



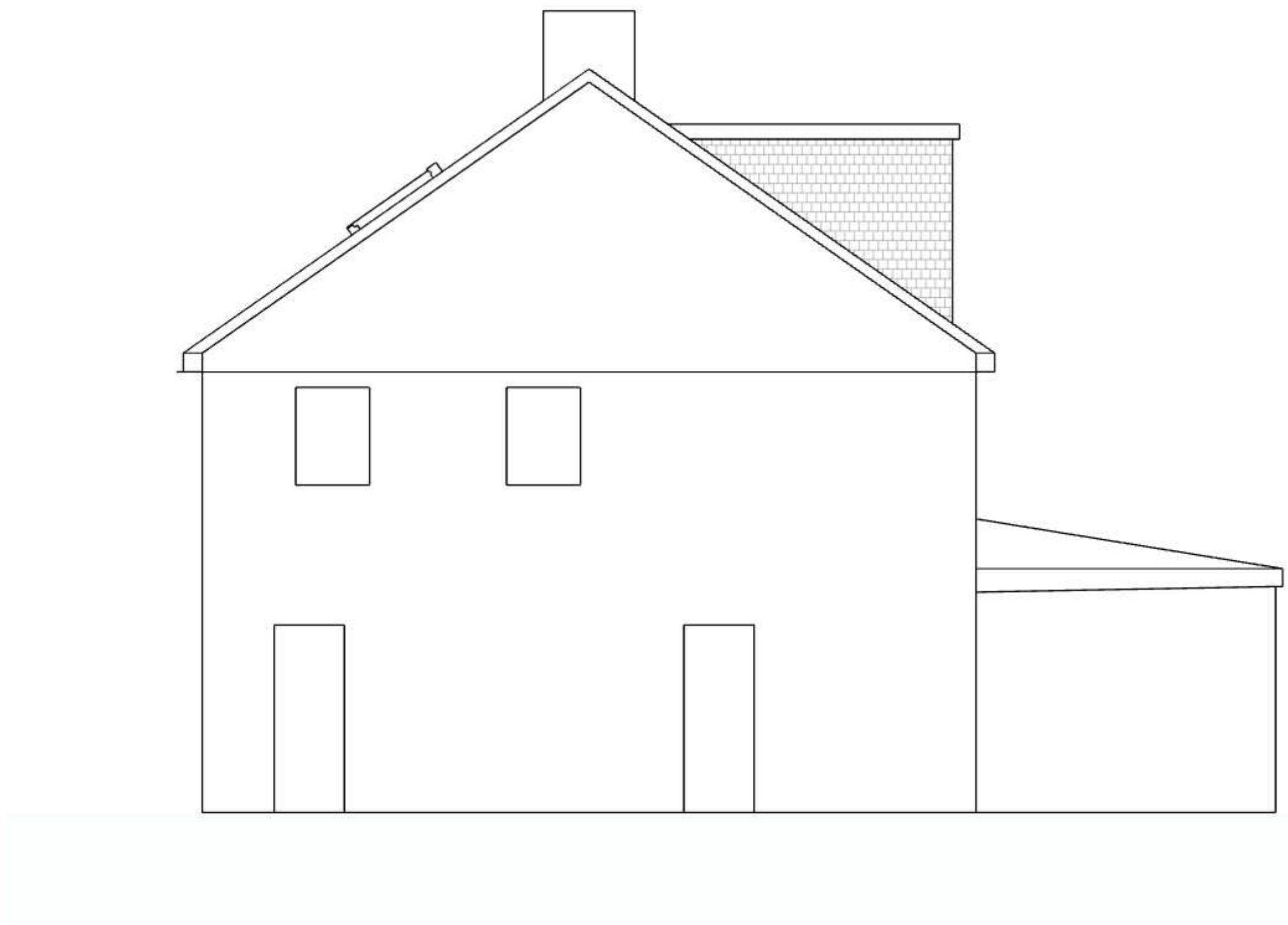
Proposed



Scale 1:50

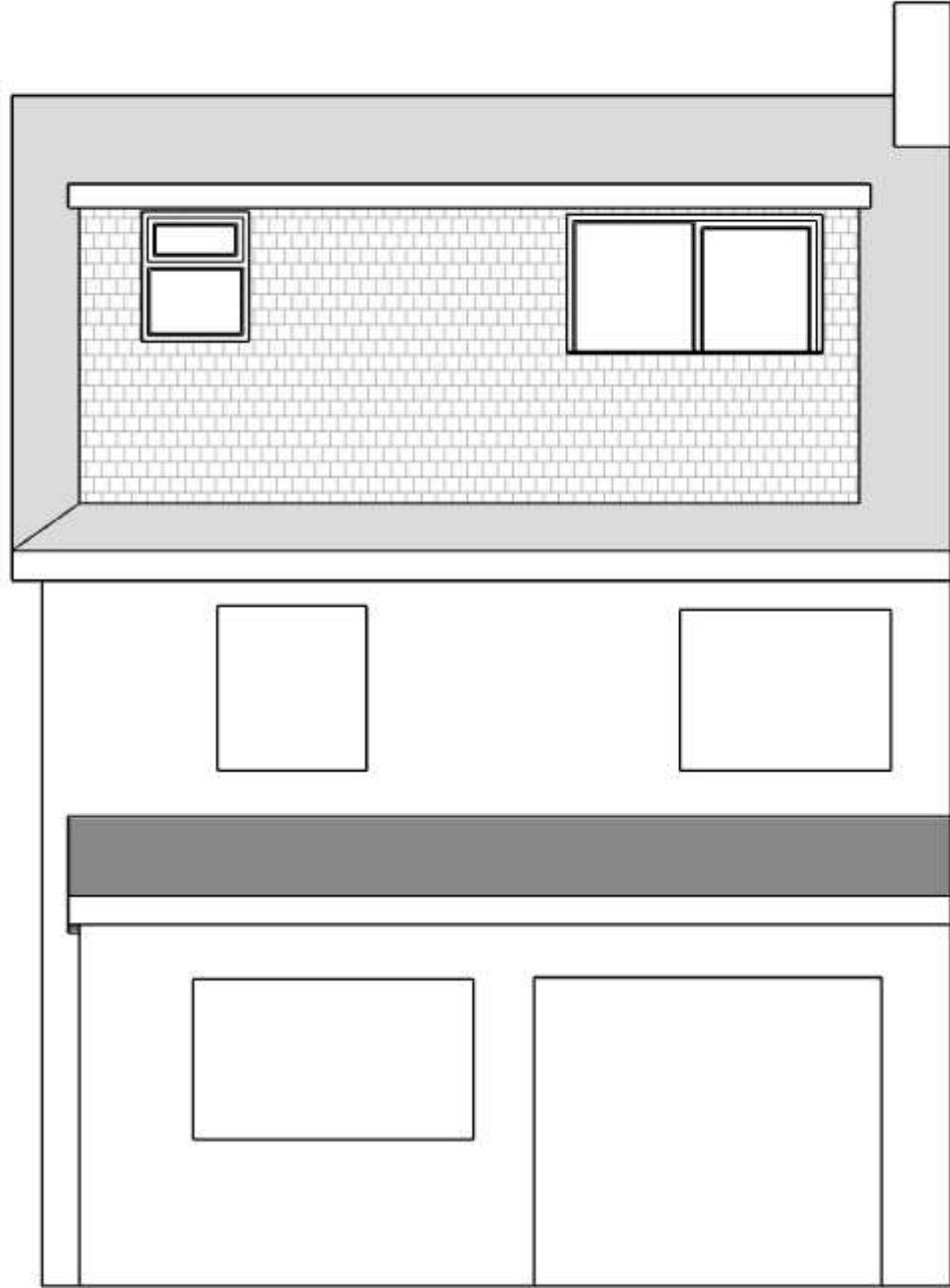


Proposed

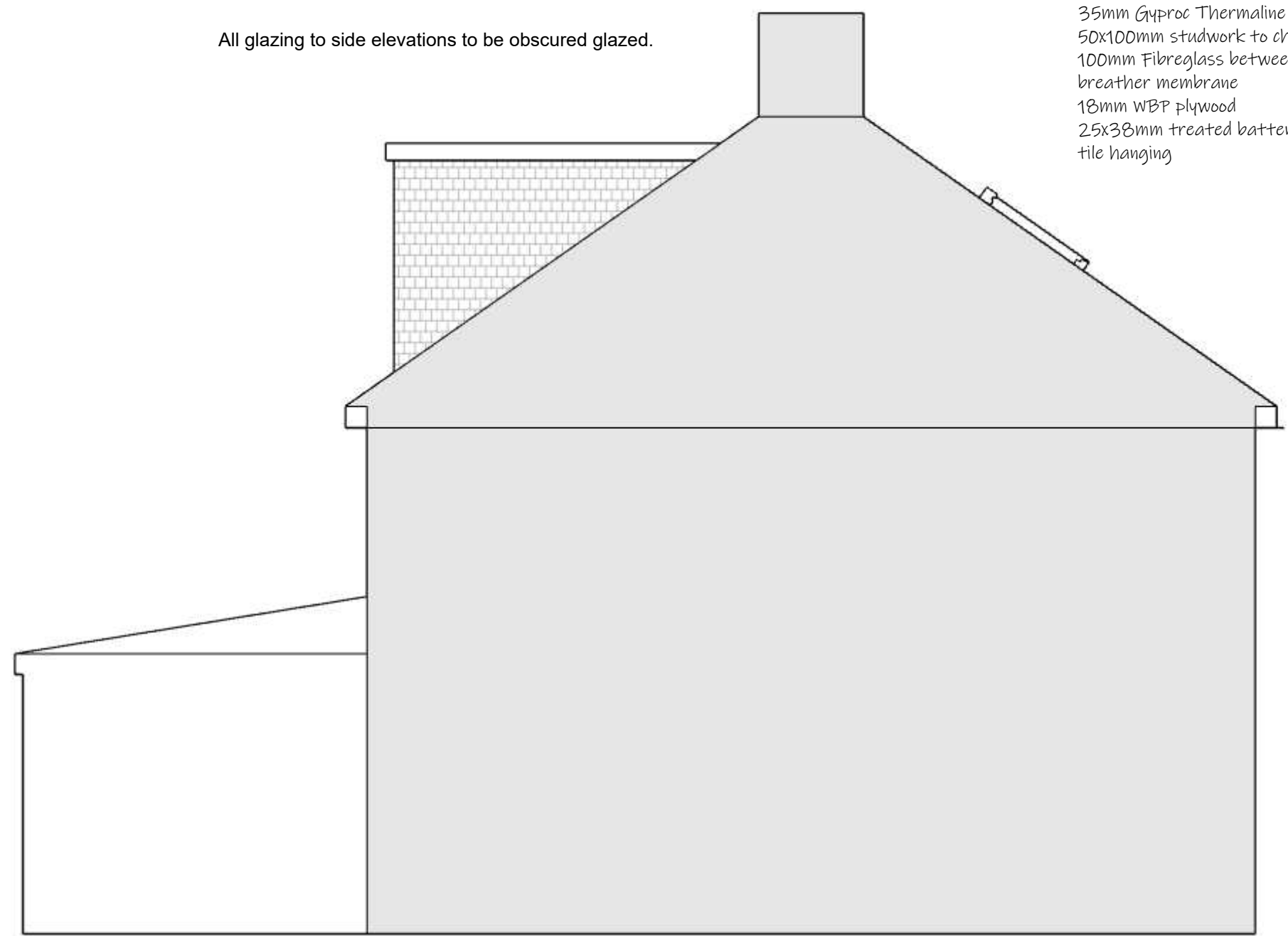


Proposed

Scale 1:50



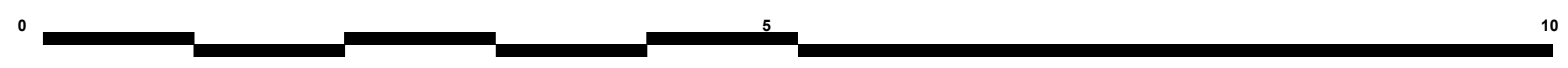
Proposed



All glazing to side elevations to be obscured glazed.

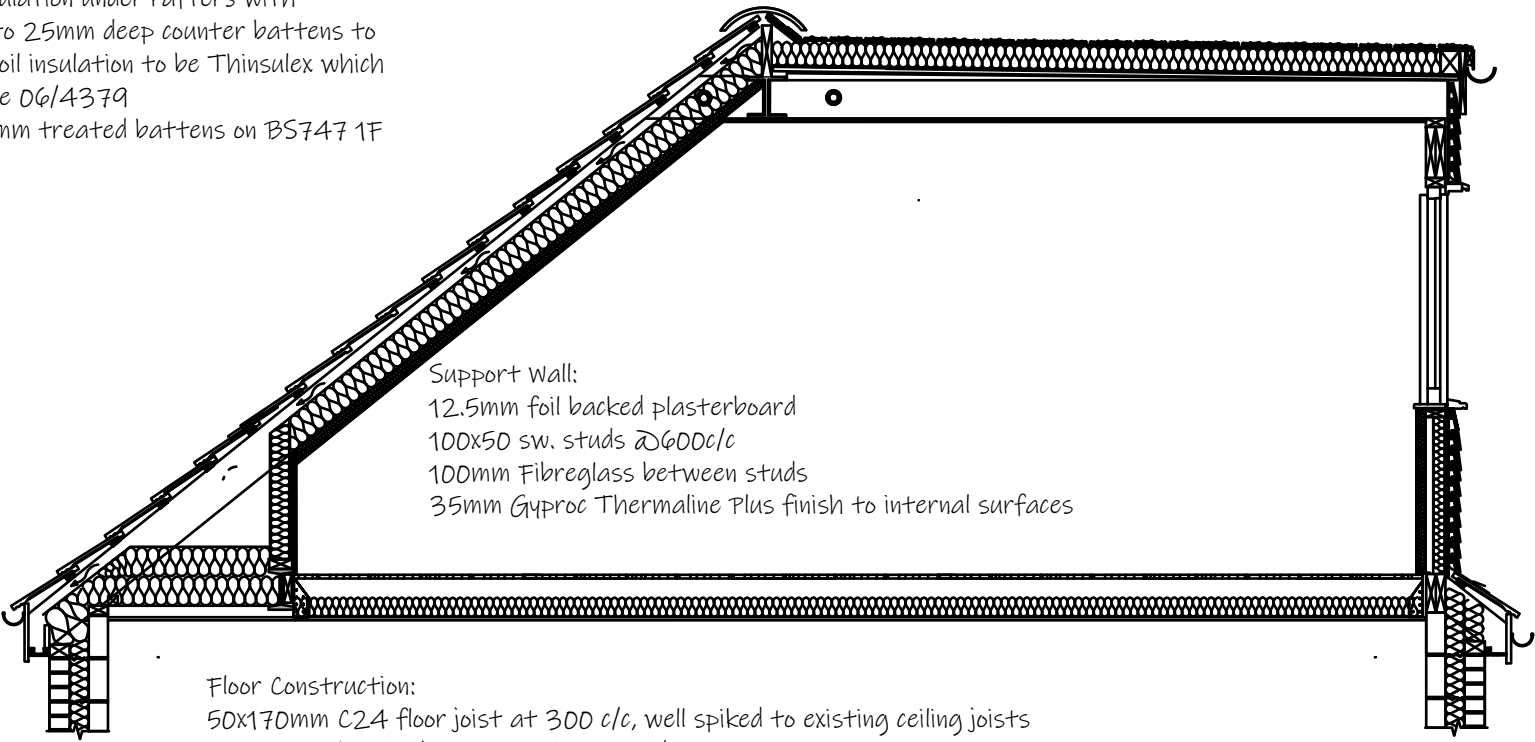
- Walls
- 12.5mm foil backed plasterboard
- 35mm Gyproc Thermaline Plus finish to internal surfaces
- 50x100mm studwork to cheeks at 600mm c/c
- 100mm Fibreglass between studs
- breather membrane
- 18mm WBP plywood
- 25x38mm treated battens on BS747 1F reinforced felt
- tile hanging

Scale 1:50



Proposed

Existing Roof:  
12.5mm foil backed plasterboard  
50x100mm exist. rafters at 360 c/c, with new 50mm section to underside to provide depth for ventilation  
Or new 50x147 rafters alongside  
80mm Celotex tuff-R GA3000 between rafters  
One layer of multifoil insulation under rafters with plasterboard attached to 25mm deep counter battens to create air space. Multi foil insulation to be Thinsulex which carries a BBA certificate 06/4379  
Existing tiles on 25x38mm treated battens on BS747 1F reinforced felt



New Dormer Roof:  
12.5mm foil backed plasterboard  
New 50 x 150mm joists at 300mm c/c,  
50mm ventilation space  
100mm Celotex XR3000 between joists  
40mm Celotex GA3000 under rafters with plasterboard attached to 25mm deep counter battens to create air space.  
18mm WBP plywood  
3 layer felt roof on tapered ex50mm treated battens on, laid to low slope in accordance with manufacturers instructions.  
Flat roof chippings are to be hot bedded.

Walls  
12.5mm foil backed plasterboard  
35mm Gyproc Thermaline Plus finish to internal surfaces  
50x100mm studwork to cheeks at 600mm c/c  
100mm Kingspan Thermawall TW55 between studs  
breather membrane  
18mm WBP plywood  
25x38mm treated battens on BS747 1F reinforced felt  
tile hanging

9mm Supalux to be used beneath tile on side of dormer to achieve required fire resistance.

All existing internal walls are assumed to be 100mm dense concrete block construction on full foundations. Site investigations are to be undertaken to prove

