

EXTENSION ROOF GENERAL

All roofs to achieve min. U-value of 0.15 W / m² K.

Roof voids to have min. 25mm eaves ventilation with ridge tile vents.

Ridge system should be a dry fix system or mechanically fixed and wet system. System to be installed in accordance with BS8612.

EXTENSION MAIN ROOF

50 x 200mm ridge board.

47 x 100mm treated softwood C24 rafters at max. 400mm ctrs. supported at eaves on wall plates fixed with ms galvanised straps 30 x 5 x 1200mm at 2m centres to at least 3 rafters turned down the inner leaf of the cavity wall. Rafters to be supported at abutment to existing dwelling via wall plate; rawl bolted to blockwork at 400m centres. (max. clear rafter span 1.76m) (slope of roof 22.5° or more but less than 30°).

All timbers to be checked by structural engineer.
All wall plates to be treated C16 softwood 100 x 50mm unless specified differently by the Engineer.
Pitched ceilings install **50mm** K107 Kingspan kooltherm pitched roof board between the rafters and **97.5mm** K118 Kingspan kooltherm insulated plasterboard below with 3mm skim finish.
To achieve min. U-value of 0.15 W / m² K.
Min. 50mm air gap to top of insulation to be maintained.

Roof void to be ventilated and provide min. 25mm eaves ventilation.

LEAN TO ROOF

New timber bearer to structural engineers calculations.

47 x 100mm treated softwood C24 rafters at max. 400mm ctrs. supported at eaves on wall plates fixed with ms galvanised straps 30 x 5 x 1200mm at 2m centres to at least 3 rafters turned down the inner leaf of the cavity wall. Rafters to be supported at abutment to existing dwelling via wall plate; rawl bolted to blockwork at 400m centres. (slope of roof 15° or more but less than 22.5°).

All wall plates to be treated C16 softwood 100 x 50mm unless specified differently by the Engineer.

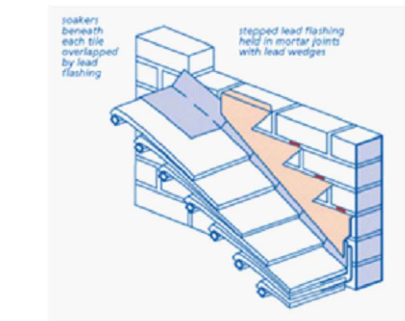
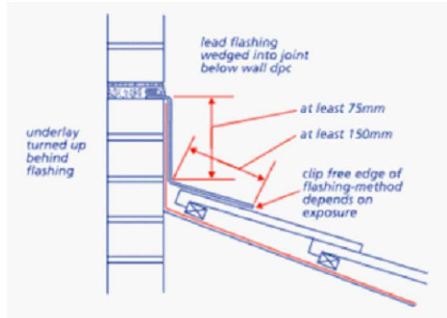
Where a pitched roof abuts the wall at an angle, a stepped cavity tray linked to a stepped flashing should be used. At roof abutments new joists to be supported on masonry walls with 47 x 150mm timber wall plate. Plate to be fixed to masonry with M10 resin anchors or thunderbolts at 450mm centres. All rafters to be birdsmouthed.

All abutments should be weatherproofed with code 4 lead flashings, and code 3 soakers. Flashings should be no more than 1500mm in length and dressed 25mm into a mortar joint.

Install **50mm** K107 Kingspan kooltherm pitched roof board between the rafters and **97.5mm** K118 Kingspan kooltherm insulated plasterboard below with 3mm skim finish. **To achieve min. U-value of 0.15 W / m² K.**

Min. 50mm air gap to top of insulation to be maintained.

Roof void to be ventilated and provide min. 25mm eaves ventilation.



FIRST FLOOR

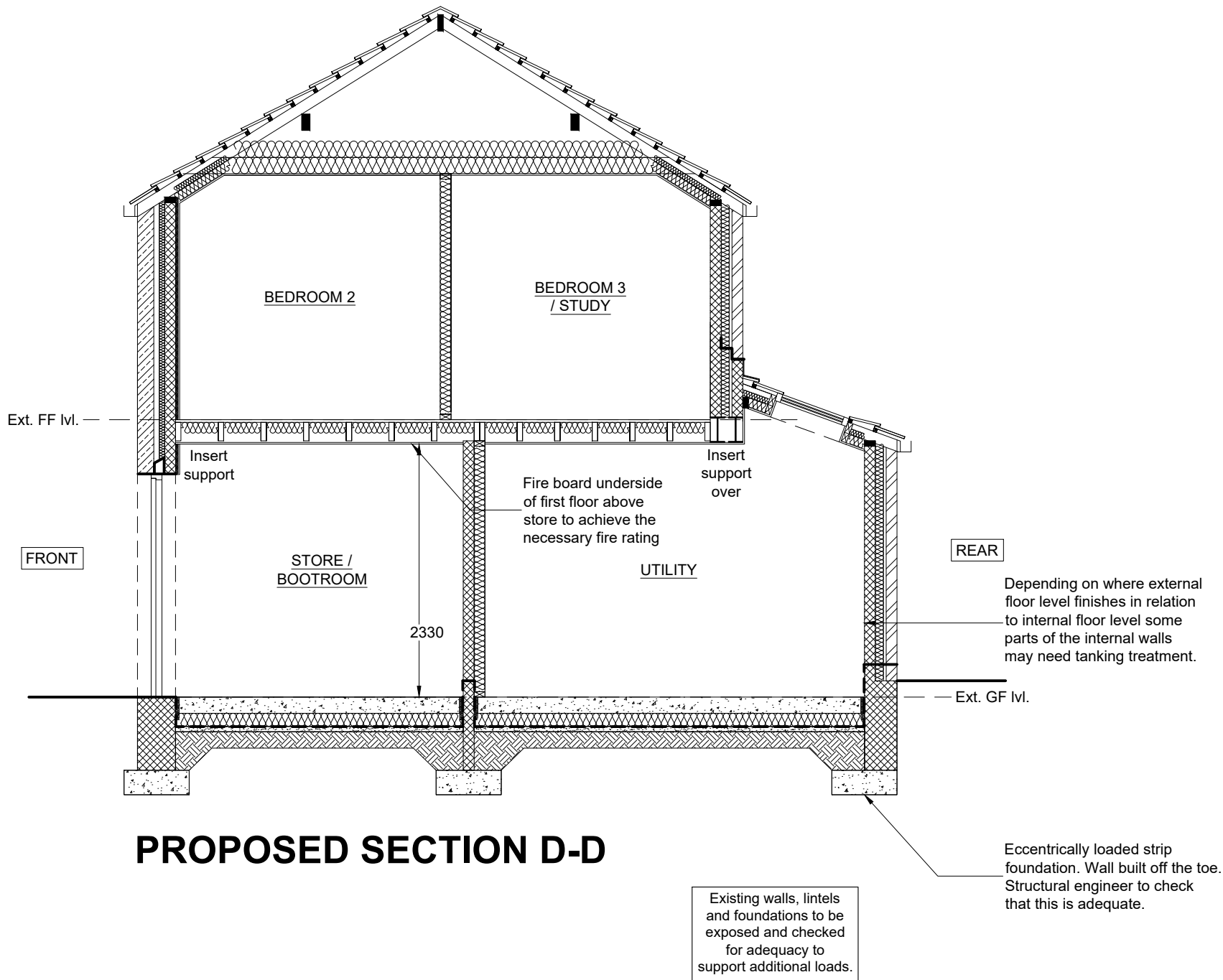
New floor structure to comprise 21mm softwood T&G boards on minimum 47 x 170mm C16 SW floor joists at max. 400mm centres (max, span 2.96m), supported by internal blockwork walls on perimeter wall plates fixed on Catnic hangers. Fit full depth noggins fixed at midspan.

Provide 30 x 5 x 1200mm galvanized ms gable restraint straps at 2000mm centres turned down inner leaf of cavity wall fixed to at least 3 joists with solid strutting between.

Double up joists below new stud walls (running parallel to floor joists) and bath.

New joists to be supported on existing masonry walls with 47 x 150mm timber wall plate, fixed to face of masonry with M10 resin anchors or thunderbolts at 450mm centres.

Floor to be insulated with min 100mm Rockwool sound insulation quilt between joists of 10/kg/m³ density finished with 12.5mm plasterboard with a skimmed finish to the underside.



PROPOSED SECTION D-D

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