

Roof Construction

ALL roof types to acheive a T4 fire rating
ALL roof type to meet a U-Value 0.15W/m²K

Flat Roof - Cold Deck - to acheive a T4 fire rating
Replace or butt 200x50mm c24 @400centres

Weatherproof fabric/materials - felt backed EDPM single ply membrane
11mm OSB Ply
Firing pieces 50-0mm at 3m
Breathable Membrane
50mm air gap, cross flow ventiation @ 600mm centres - continuous soffit vent to all elevations
150mm rigid insulation between timbers
50mm rigid insulation (Foiled Bubble with 25mm air gap option)
Plastered, plasterboard to finish

Continuous ventilation around fascias

Flat Roof - Warm Deck - to acheive a T4 fire rating
Replace or butt 200x50mm c24 @400centres

Weatherproof fabric/materials - felt backed EDPM single ply membrane
150mm rigid insulation
11mm OSB Ply
Firing pieces 50-0mm at 3m
Breathable Membrane
Roof Joists (50*200mm @ c400mm)
25mm rigid insulation (Foiled Bubble with 25mm air gap option)
Plastered, plasterboard to finish

Continuous ventilation around fascias

Main Roof (subject to Structural calculation , if applicable)
Replace or butt 200x50mm c24 @400centres

Roof tiles on Breathable Felt and 25mm Batten to be installed to manufacturers specification
* especially where the pitch is<15degrees specify which tile used to meet a low pitch.
50mm air gap, cross flow ventiation
150mm rigid insulation between timbers
50mm rigid insulation (Foiled Bubble with 25mm air gap option)
Plastered, plasterboard to finish

Continuous ventilation around fascias

Roof fixings
mild steel 3 anchors cross section 30x5mm @ 1200 centres
Wall plate to be 200*50mm , with 100*50mm on top, 200*50mm c24
roof timbers to be bird bouth jointed to the wall plate

Flashings
Pitched roof
Soakers 100mm under tile and 100mm upstand over lapped per tile
Flashing to cover the tiles by 150mm, 150mm upstand, cut and pointed into exterior wall.

Where any roof is to join a cavity wall, cavity trays to be fitted with code 4 Lead flashing.

Passive Ventilation

Windows to be Double glazed with Low emmissivity Glass, min 16mm gap
1/20th of the floor area must be opening
Trickle vents to all new windows
Sofit Ventilation to be continuous
All timber roof to maintain cross ventiation to enable cross ventilation to the cavity

Mechanical Ventilation

En-Suite & Utility area's (where applicable) to be ducted @ 6 litres/sec or 3 air changes per hour, connected to lights with a 15 minute over run.

30 L/Sec mechanical ventilation required to utility area
15 L/Sec mechanical ventilation required to en-suite

Smoke Alarm

Where suitable Means of Escape (MoE) cannot be acheived a heat detector to be installed in the kitchen
mains linked to the smoke detectors on each floor.

Mains operated smoke detceion and alarm with battery back-up to all circulatio areas on Ground and 1st Floor

Loft Conversion

Dormer Cheeks/Exterior Walls

from the Exterior
Cladding - firbre cememt for external walls or equivient James Hardie fire rated to A2 s1-d0,
minimum of B-s3,d2/option finish
25mm Cross Batten
Masterboard or equivalent
Breathable membrane
12mm OSB ply
200 x 50mm c24 Timbers @ 400mm centre, noggings at <1100mm
Between the timbers
100mm air gap, with 50mm holes driled for cross ventilation
100mm rigid insulation

Timbers to have a 200*50mm c24 head and base plate - fixed to a 250*50 plate bonded at damp,
fixed to the brick work to the brick work with 30*5mm glavansied fixings @ 600mm centres.

50mm rigid insulaton
Plastered, plaster board to interior finish

Interior Doors

All fire doors to be/have:
- linings to be 32mm thick with 25mm door stop
- fitted with fire & smoke intumiscsent strips
- fitted with consealed chain door closers

ALL doors to habitable rooms on ALL floors to be FD30 and a minimum of 44mm.

Smoke alarm

To be mains powered and on each floor. If not main powered, to be installed in each habitable
room/circulation space in accordance with BS 5839-6

Where suitable Means of Escape (MoE) cannot be acheived a heat detctor to be installed in the kitchen
mains linked to the smoke detectors on each floor.

Minimum of one window per habitable room must be of <1000mm cill height, top opening,
means of escape >500*700mm

Ashlar Wall

A nominal 1200mm from the eaves, sited under the purclin @ a nominal 125*75mm *
Joined by means of a birdmouth joint, supported by timbers (50*100mm)*
@ 400mm centres
Base plate of 2x 50*100mm timbers, bolted - or UB

All timber to be graded as C24, unless otherwise stated.

* subject to Structural Engineer confirmation

Doors, Windows and Openings

Openings

Catnic Lintel in accorddnce with manufacturer spans with min 150mm bearings
alternative, a minimum of a double trimmer to the nearest Rafter. All trimmer to be fixed with a star washers between each timber,
at each fixing point.
- minimum of M12 washers, nuts and bolts fixed at 600mm centres, Larger voids to have a 5mm flinch plate between each timber.

Windows

All window to be fitted with trickle vents and each habitable room must have an opening equaling at least 1/20th (5%) of the floor area.

Fire escape windows must provide an unobstructed opening of at least 0.33m² with a minimum dimension of 450mm in height or width. Single side opening windows will need to have a minimum frame width of 610mm to comply with building regulations and a 2 pane side opening window needs to have a minimum width of 595mm.
Cill to be between 800-1100mm for all Means of Escape windows

Where the cill height is <800mm or in critical areas, toughened glass must be used in the lower most pane in accordance with BS 6026.

U value = 1.4 W/m2.K and WER Band C

Doors

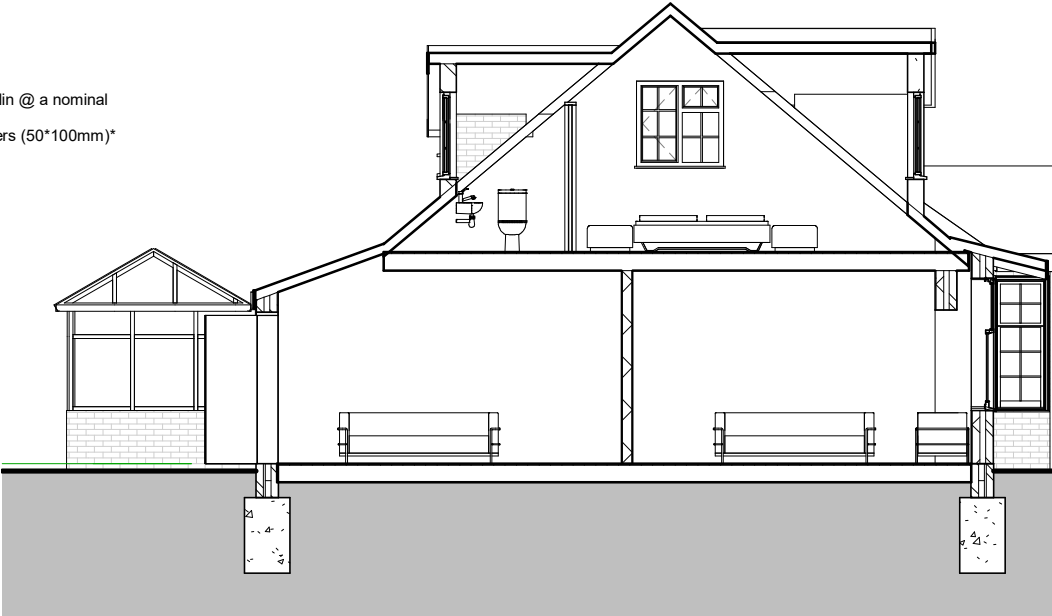
New Build doors must be a minimum of 775mm wide
U value = 1.4 W/m2.K

ALL door and windows reveals to be fitted with insulated cavity closers

All internal doors to be undercut by 10mm if floor covering included or 20mm with no floor coverings.

Minimum U-Values for doors, windows and roof 1.4W/m2K
The U-value for doors 1.4W/m2K, while fire doors can meet the U-value of 1.8W/m2K

Extensions will also be required to have no more than 25% floor area as glazing (windows, roof windows, rooflights)
- alternatively homeowners must be able to demonstrate compliance with an area-weighted U-value calculation or via SAP.



Insulation

ALL insulation to be taped and jointed with thermal tape (gapotape as an example)

ALL insulation installation to be documented with photos as evidence of the performance efficiency

U Values (June 22)

Roofs have gone from 0.18/0.16 depending on type to 0.15 for all roofs

Walls have gone from 0.28 to 0.18

Floors have gone from 0.22 to 0.18

Windows have gone from 1.6 to 1.4 with glazed doors also going from 1.8 to 1.4

Rooflights are 2.20

Floor Construction

ALL Floors
To meet accustic performance 40RWdb for each floor
To meet U-Value 0.22 W/m2K

Timber Suspended (different size timbers and C's can be used in conjunction with the attached span table)

22mm T&G P5 chipboard flooring
200x50mm C24 timber joists @ 400mm centres
- single galvanied joist hangers, fixed as per manufacturer spec
- floor void to be fill with 150mm cellotex
Minimum 150mm void to over site

Solid

25mm perimeter insulation (from DPC to screed)*
25mm Screed finish
50mm sharp sand/cement
500 gauge polythene vapour barrier
100mm rigid insultaion GA3000 (eg Cellotex or EcoTherm) *
1200 gauge polythene DPM
150mm Concrete to include A142 Anti-Crack mesh
Radon Barrier Membrane to complete floor area
150mm min hardcore base (well compacted)

Internal Floor/Ceiling

Chipboard minimum of 22mm
minimum 100mm mineral wool in void
ceiling with a mass/unit area of 10kg/m2 made up by
12.5mm plasterbard and 3mm plaster/skim finish
meet a U-Value of 0.18W/m2k

Mechanical

All electrical works to be carried out in accordance with Approved Document P by a qualified installer and certification provided.

All lighting to be low energy

The maximum flow temperatures in a central heating system is now 55°C where it was previously over 75°C

All sockets to be a max of 450mm from ground level & switches no more than 1100mm.

All circulation spaces to have mains powered smoke alarms, with back up power and interlinked in conjunction with BS5446.

All Gas and plumbing work to be carried out by a Gas Safe engineer - all sanitary pipework to conform to BS EN 12056.

All Sanitary waste to be 1"/1/2 or 42mm

Commissioning, Certification and Information Provision.

* An appropriate BS 7671 electrical installation certificate will be required from an electrician registered with a recognised trade body, such as NICEIC, ECA & NAPIT
* An installation certificate is required for any new or altered unvented hot water cylinder, commissioned by a competent installer.
* An installation certificate is required for any new or altered gas appliance.

Non-Foul water disposal

100mm gutters and down pipe into existing surface water drains
alternatively soakaway minimum of 5m from any building and min 1m3
ensure NRV (No Return Valves) are used.

Where appropriate, a soakaway designed in accordance BRE Digest 365 for Surface Water disposal, ideally minimum of 5.5m from any habitable structure eg. Wavin Aquacell

Drainage

Soil - 100mm approved plastic, laid @ 1:40 bedded and 150mm peashingle haunch
150mm concrete. Concrete lintel to protect if through foundation
* all drainage specified(if at all) is assumed in the absence of a complete drainage survey

Damp Course

Engineering Brick to both faces with 100mm gap
Ducted Air bricks spaced @ 1500mm intervals and a minimum of 75mm above hard-standing

Foundations

minimum of 1000mm deep for single storey 1500mm for double storey, basement to be 1000mm
- subject to Strutcral Engineer's design
minimum of 1500 for double storey - to Building Inspectors Approval to suit conditions.
Use only Class A concrete blocks below ground minimum of 600mm wide
at a ratio of 1:3:6 (cement:sand:aggregate)

1:500		50
1:200		20
1:100		10
1:50		5



* All details are subject to comment and approval by the appointed Building Inspector *
* All measurements to be confirmed on site prior to any manufacture *
* If in any doubt, ask either the author or Structural Engineer - where appropriate.
* Additional details are added to allow for variance at construction stage
* Where an option, delete as appropriate

All measurement to be checked on site prior to any commenment

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PROJECT

82 Lovedean Lane PO8 9SS

SHEET

Building Regs X Section

CLIENT

Duff

Date

Issue Date

Scale (@ A3)

1 : 100

Drawn by

SW

DRAWING NUMBER

REV

Checked by

SR

BR 1