

FRONT ELEVATION - 1:100

ELEVATION ON A - 1:100

REAR ELEVATION - 1:100

ELEVATION ON B - 1:100



THIS BAR SHOULD SCALE 5M @ 1:100

#### TRENCH FOUNDATION

Provide 750mm x 600mm trench fill foundations, concrete mix to conform to BS EN 206-1 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004:1986 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions or difference in soil type be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a structural engineer should be sought.

#### WALLS BELOW GROUND

All new walls to have Class A blockwork below ground level or alternatively semi engineering brickwork in 1:4 masonry cement or equal approved specification. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes.

#### PIPEWORK THROUGH WALLS

Where new pipework passes through external walls form rocker joints either side wall face of max length 600mm with flexible joints with short length of pipe bedded in wall. Alternatively provide 75mm deep pre-cast concrete plank lintels over drain to form opening in wall to give 50mm space all round pipe. mask opening both sides with rigid sheet material and compressible sealant to prevent entry of fill or vermin.

#### UNDERGROUND FOUL DRAINAGE

Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1: 2009.

#### ABOVE GROUND DRAINAGE

All new above ground drainage and plumbing to comply with BS EN 12056-2:2000 for sanitary pipework. All drainage to be in accordance with Part H of the Building Regulations. Wastes to have 75mm deep anti vac bottle traps and rodding eyes to be provided at changes of direction.

Size of wastes pipes and max length of branch connections (if max length is exceeded then anti vacuum traps to be used)

Wash basin - 1.7m for 32mm pipe 4m for 40mm pipe

Bath/shower - 3m for 40mm pipe 4m for 50mm pipe

W/c - 6m for 100mm pipe for single WC

All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m.

Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.

Waste pipes not to connect on to SVP within 200mm of the WC connection.

Supply hot and cold water to all fittings as appropriate.

#### FULL FILL CAVITY WALL

To achieve minimum U Value of 0.28W/m<sup>2</sup>K

New cavity wall to comprise of 105mm facing brick to match existing. Full fill the cavity with Dnitherm32 cavity insulation as manufacturer's details. Inner leaf to be 100mm lightweight block, K value 0.16. (Aircrete, Celcon solar, Topblock toplite standard). Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1.6 cement mortar.

#### WALL TIES

All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm ctrs horizontally, 450mm vertically and 225mm ctrs at reveals and corners in staggered rows.

Wall ties to be suitable for cavity width and in accordance with BS 5628-6.1: 1996 and BS EN 845-1: 2003

#### INTERMEDIATE FLOORS

Intermediate floor to be 25mm t&g flooring grade chipboard or floorboards laid on C24 joists at 400mm ctrs (see engineer's calculation for sizes and details). Lay 100mm Rockwool mineral fibre quilt insulation min 10kg/m<sup>3</sup> or equivalent between floor joists. Ceiling to be 12.5 FireLine plasterboard with skim plaster set and finish. Joist spans over 2.5m to be strutted at mid span using 38 x 38mm herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). In areas such as kitchens, utility rooms and bathrooms, flooring to be moisture resistant grade in accordance with BS EN 312:2010. Identification marking must be laid upper most to allow easy identification. Provide lateral restraint where joists run parallel to walls. floors are to be strapped to walls with 1000mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 at max 2.0m centres, straps to be taken across minimum 3 no. joists. Straps to be built into walls. Provide 38mm wide x ¾ depth solid noggins between joists at strap positions.

#### INTERNAL STUD PARTITIONS

100mm x 50mm softwood treated timbers studs at 400mm ctrs with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm. Provide min 10kg/m<sup>3</sup> density acoustic soundproof quilt tightly packed (eg. 100mm Rockwool or Iso wool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

#### NEW AND REPLACEMENT WINDOWS

New and replacement windows to be double glazed with 16mm argon gap and soft coat low-E glass. Window Energy Rating to be Band C or better and to achieve U-value of 1.6 W/m<sup>2</sup>K. The door and window openings should be limited to 25% of the extension floor area plus the area of any existing openings covered by the extension.

#### NEW AND REPLACEMENT DOORS

New and replacement doors to achieve a U-Value of 1.80W/m<sup>2</sup>K. Glazed areas to be double glazed with 16mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current Building Regulations.

#### SAFETY GLAZING

All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current Building Regulations, i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

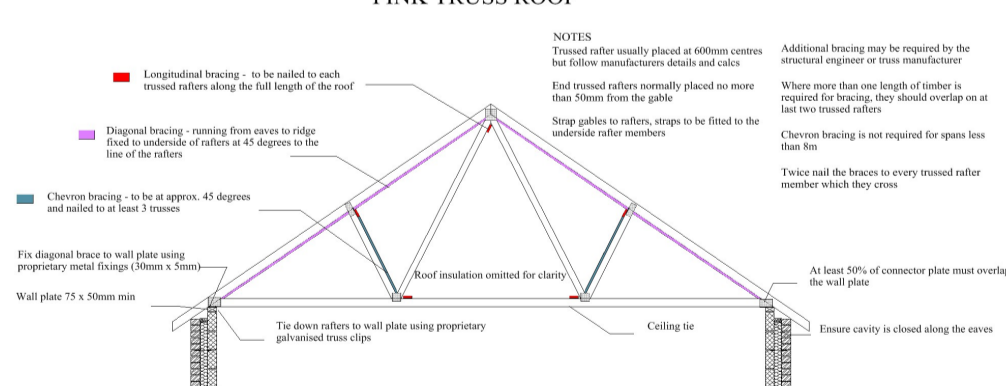
#### ESCAPE WINDOWS

Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. Windows to have an unobstructed operable area of 450mm high x 450mm wide, minimum 0.33m<sup>2</sup> sq. The bottom of the operable area should be not more than 1100mm above the floor. The window should enable the person to reach a place free from danger from fire.

#### TRUSSED RAFTER ROOF

Pitched roof to be formed using proprietary prefabricated manufactured trusses. Design of roof trusses to be produced by specialist truss manufacturer to BS EN 595:1995 and submitted to Building Control for approval prior to commencement of work. Trusses to be placed at max 600ctrs in accordance with BS 8103-3:2009 and BS EN 1995-1 on suitable wall plates fixed using proprietary galvanised steel truss clips. All strapping, fixing and bracing to be in accordance with manufacturer's instructions. Mechanically fix trusses to 100 x 50mm sw treated wall plates using galvanised steel truss clips. Form ceiling using 12.5mm plasterboard and min 3mm thick multi-finish plaster and lay 150mm Rockwool insulation between ceiling joists with a further 170mm layer over joists (cross direction). Provide polythene vapour barrier between insulation and plasterboard. Ensure opening at eaves level at least equal to continuous strip 25mm wide in two opposite sides to promote cross-ventilation. More pitched roofs to have ridge/high level ventilation equivalent to a 5mm gap via proprietary tie vents spaced in accordance with manufacturer's details.

#### FINK TRUSS ROOF



#### VENTILATED FLAT ROOF

(imposed load max 1.0 kN/m<sup>2</sup> - dead load max 0.75 kN/m<sup>2</sup>)

To achieve U value of 0.18 W/m<sup>2</sup>K

Flat roof to be single ply membrane roofing with aa fire rating as specialist specification, with a current BBA or WIMLAS Certificate on 22mm exterior grade plywood, laid on firings to give a 1:40 fall on 47 x 195mm grade C24 joists at 400 ctrs max span 4.51m (see engineer's details for sizes). Cross-ventilation to be provided on opposing sides by a proprietary eaves ventilation strip equivalent to 25mm continuous ventilation, with fly proof screen. Flat roof insulation is to be continuous with the wall insulation but stopped back to allow a continuous 50mm air gap above the insulation for ventilation. Insulation to be 125mm Kingspan Thermaclad between joists and 25mm Kingspan under joists. Ceilings to be 12.5mm plasterboard over vapour barrier with skim plaster finish.

Provide cavity tray where pitched roof meets existing wall. Provide restraint to flat roof by fixing using of 30 x 5 x 1000mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to comply to BS 8000-4. THIS IS A GENERAL GUIDE BASED ON NORMAL LOADING CONDITIONS FOUND IN DOMESTIC CONSTRUCTION. IT IS YOUR RESPONSIBILITY TO ASSESS YOUR DESIGN TO ASCERTAIN WHETHER ENGINEER'S DETAILS/CALCULATIONS ARE REQUIRED. PLEASE REFER TO THE TRADA DOCUMENT - SPAN TABLES FOR SOLID TIMBER MEMBERS IN FLOORS, CEILINGS AND ROOFS FOR DWELLINGS OR ASK YOUR BUILDING CONTROL OFFICER FOR ADVICE.

#### NOTES

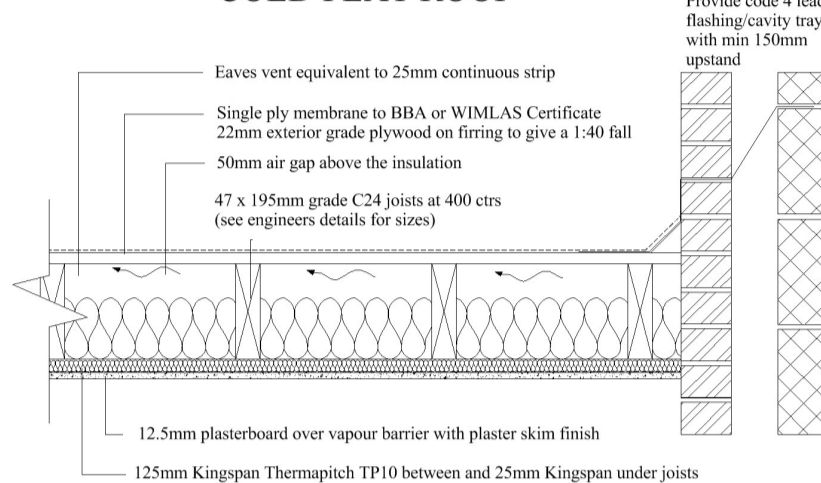
1) ALL DIMENSIONS TO BE CHECKED ONSITE PRIOR TO CONSTRUCTION. (INTERNAL DIMS MAY CHANGE DEPENDING ON EXTERNAL WALL CONSTRUCTION METHOD)

2) A STRUCTURAL ENGINEER MUST BE CONSULTED FOR ALL STRUCTURAL WORKS

3) WORKS TO BE CARRIED OUT BY COMPETENT, QUALIFIED CONTRACTORS

4) ALL WORKS TO BE CARRIED OUT UNDER ALOCAL AUTHORITY BUILDING NOTICE ALL BUILD NOTES ARE GIVEN BASED ON STANDARD BUILDING REGULATIONS DETAILS AND MAY VARY. CONSTRUCTION METHODS MAY VARY ACCORDING TO BUILDERS PREFERENCE AND BUILDING CONTROL OFFICER REQUIREMENTS. THESE DRAWINGS ARE PRODUCED FOR PLANNING ONLY.

#### COLD FLAT ROOF



#### BACKGROUND AND PURGE VENTILATION

Background ventilation - Controllable background ventilation via trickle vents to BS EN 13141-3 within the window frame to be provided to new habitable rooms at a rate of min 5000mm<sup>2</sup>; and to kitchens, bathrooms, WCs and utility rooms at a rate of 2500mm<sup>2</sup>. Purge ventilation - New Windows/rooftlights to have openable area in excess of 1/20th of their floor area, if the window opens more than 30° or 1/10th of their floor area if the window opens less than 30°. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide.

#### EXTRACT TO BATHROOM

Bathroom to have mechanical vent ducted to external air to provide min 15 litres / sec extraction. Vent to be connected to light switch and to have 15 minute over run if no window in room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

#### EXTRACT TO KITCHEN

Kitchen to have mechanical ventilation with an extract rating of 60l/sec or 30l/sec if adjacent to hob to external air, sealed to prevent entry of moisture. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. Cooker hoods to BS EN 13141-3. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

#### ELECTRICAL

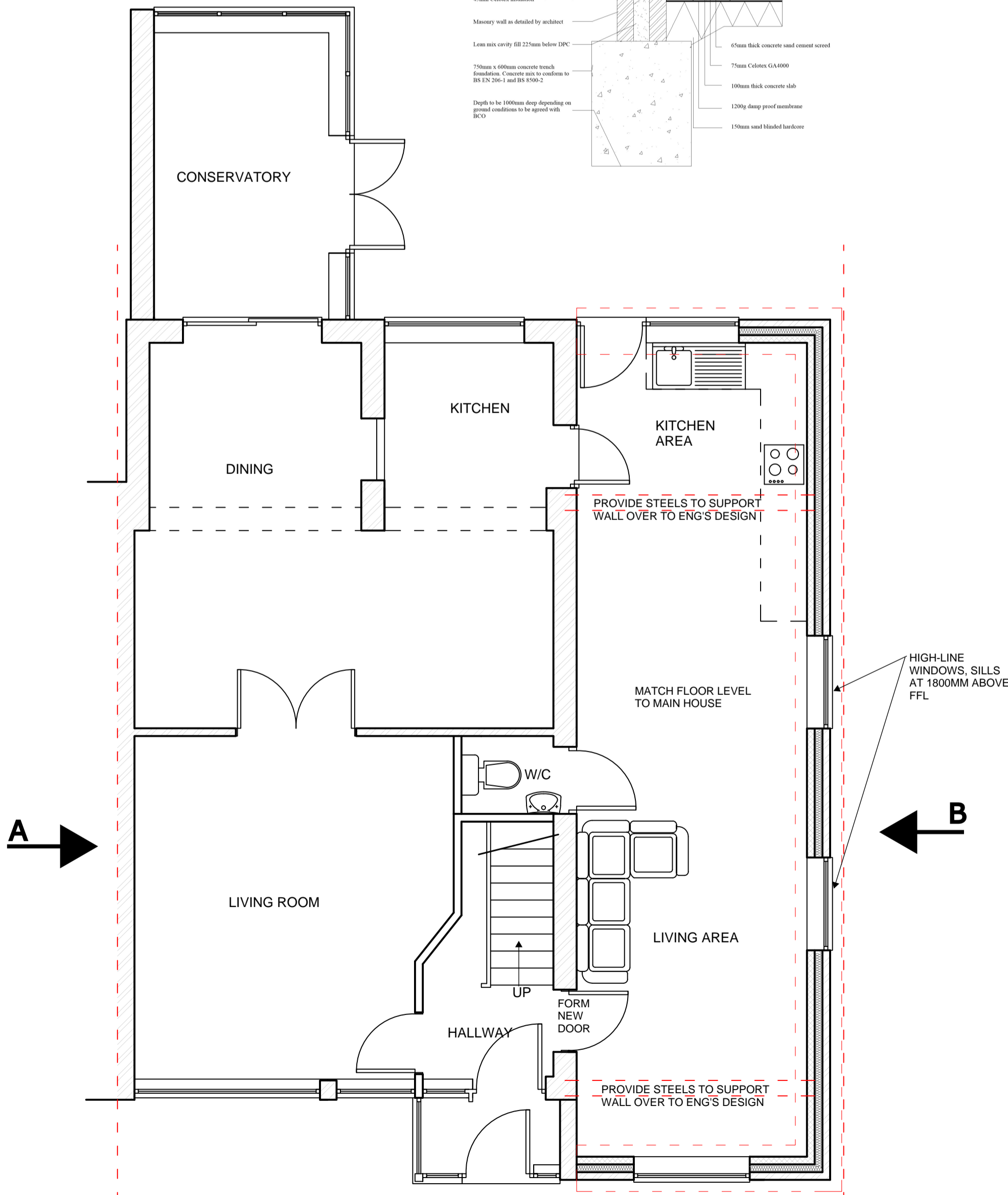
All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BRE certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to Building Control on completion.

#### INTERNAL LIGHTING

Install low energy light fittings that only take lamps having a luminous efficiency greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens. Not less than three energy efficient light fittings per four of all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations and the Domestic Building Services Compliance Guide.

#### HEATING

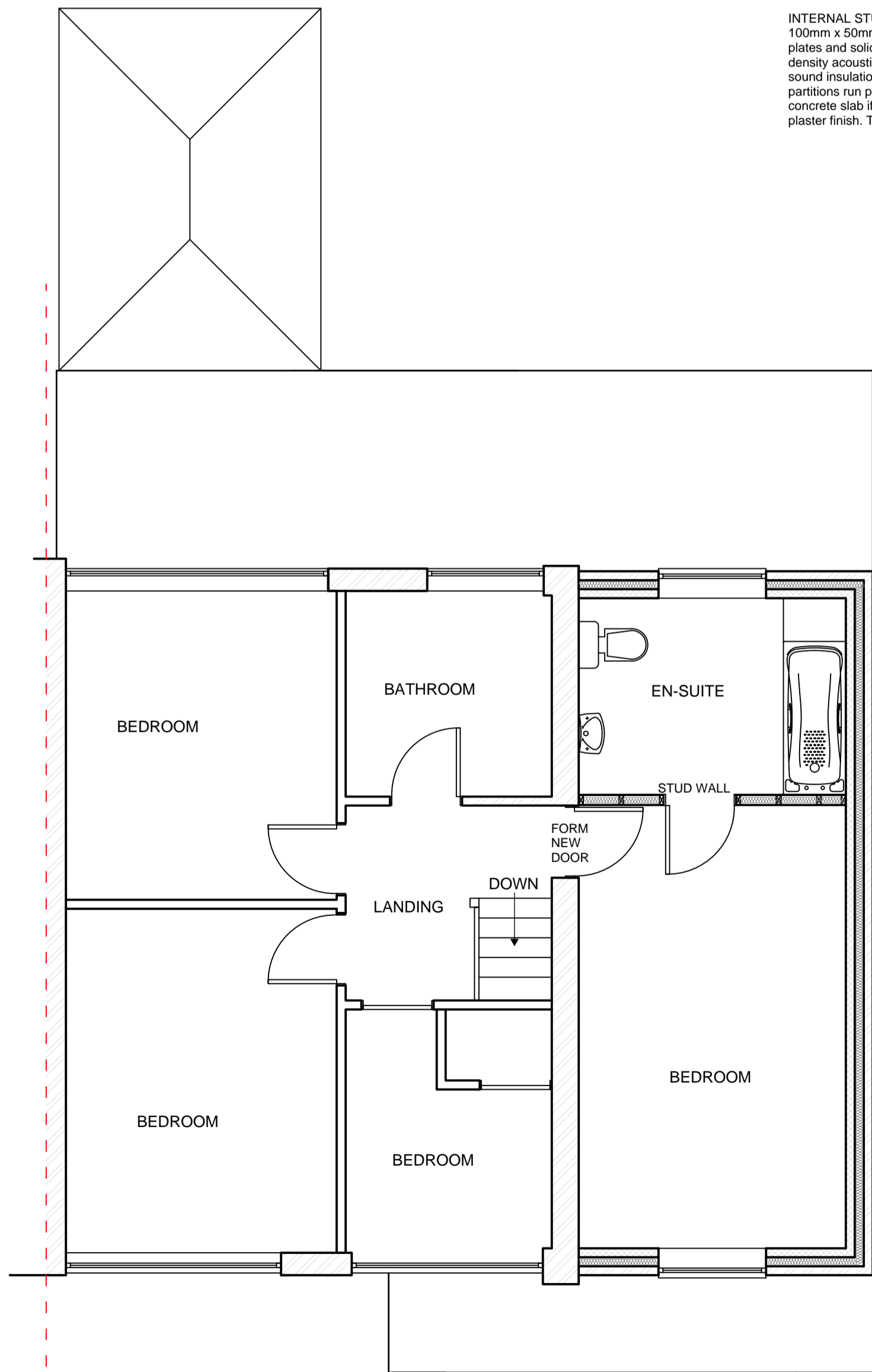
Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.



AS EXISTING GROUND FLOOR PLAN - 1:50



THIS BAR SHOULD SCALE 5M @ 1:50



AS EXISTING FIRST FLOOR PLAN - 1:50

FOR PLANNING ONLY

**HOMEPLAN**  
DRAFTING SERVICES

ARCHITECTURE PLANNING DESIGN

07950283576 07584082621  
briony@homeplanservices.co.uk glenn@homeplanservices.co.uk

CLIENT/PROJECT:

MR & MRS CULL

PROPOSED EXTENSION TO PROPERTY  
TO CREATE ANNEXE FOR PARENT  
18 LONG MYND AVENUE, CHELTENHAM GL51 3QN

TITLE:

AS PROPOSED PLANS AND ELEVATIONS

SCALE:

1:100 AND 1:50 @ A1

DATE:

MAY 2021

CULL-18LMA-C-G-002