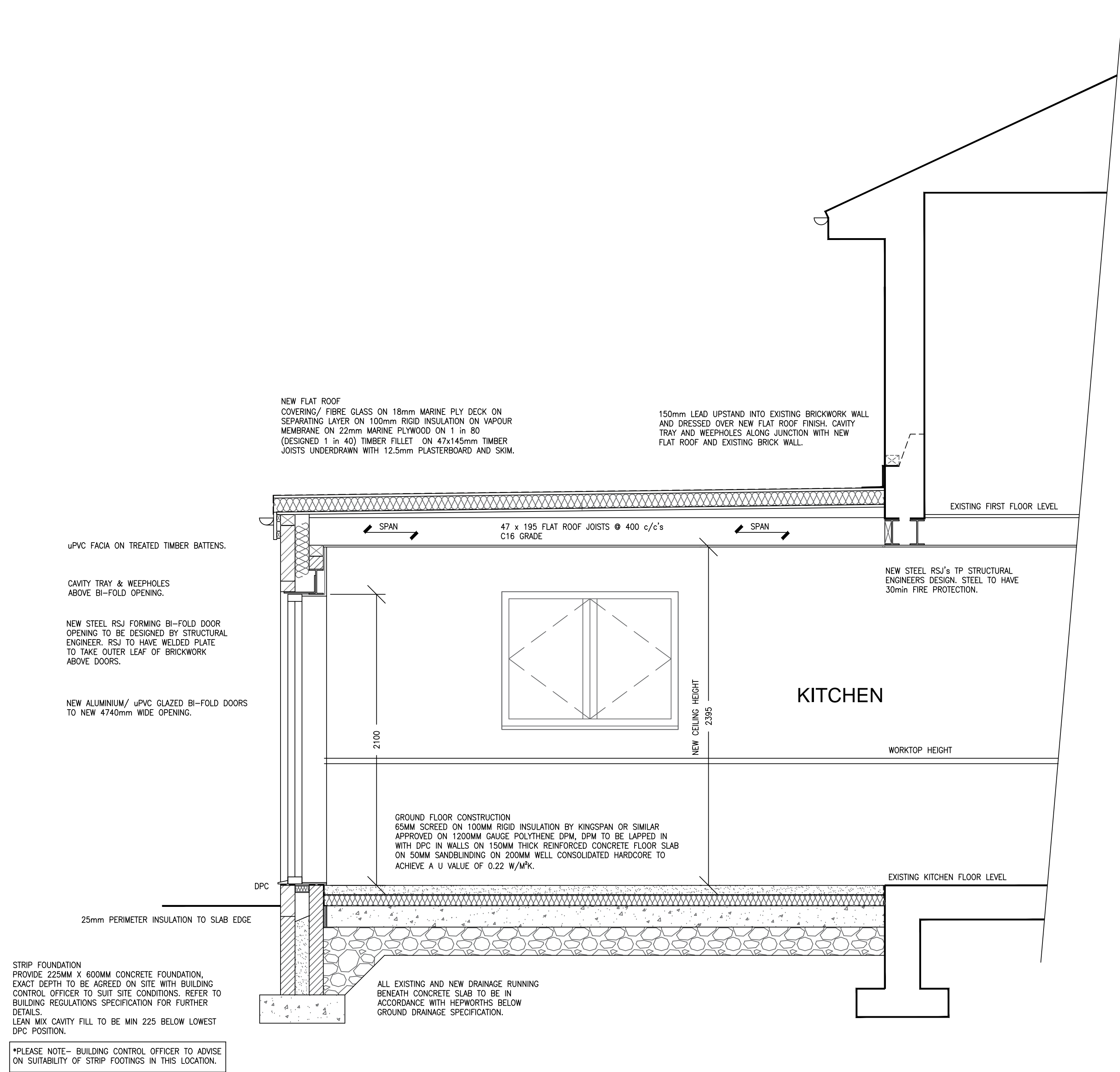


# PROPOSED CROSS SECTION A-A & NOTES



1:20 SECTION A-A

## PROPOSED REAR & SIDE EXTENSION 16a LARKHOLME PARADE, FLEETWOOD FOR MR & MRS THOMPSON

**CDM REGULATIONS**  
The owner, should they need to do so, must abide by the Construction Design and Management Regulations 2007 which relate to any building works involving more than 500 man hours or longer than 30 days duration. It is the client's responsibility to appoint a Planning Supervisor on all projects that require compliance with the CDM Regulations.

**THERMAL BRIDGING**  
Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new building fabric.

**MATERIALS AND WORKMANSHIP**  
All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.

**SITE PREPARATION**  
Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc. on or in the ground covered, or to be covered by the building.

**EXISTING STRUCTURE**  
Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.

**BEAMS**  
Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. If installed. Steel beams to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

**LINTELS**  
For uniformly distributed loads and standard single storey domestic loadings only  
Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end. Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS 8110, with a concrete strength of 50 or 40 N/mm<sup>2</sup> and incorporating steel strands to BS 5896 to support loadings assessed to BS 5977 Part 1.  
For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufacturers standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.

**OPENINGS AND RETURNS**  
An opening or recess greater than 0.1m<sup>2</sup> shall be at least 550mm from the supported wall (measured internally).

**FULL FILL CAVITY WALL**  
To achieve minimum U Value of 0.28W/m<sup>2</sup>K  
New cavity wall to comprise 102.5mm facing brickwork, full fill cavity 100mm Dritherm32 cavity insulation or similar approved as manufacturer's details. Inner leaf to be 100mm block K value 1.13, e.g. Lafarge Stancrete. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1.6 cement mortar/

**CAVITIES**  
Provide cavity trays over openings. All cavities to be closed at eaves and around openings using Thermabate or similar non combustible insulated cavity closers. Provide vertical DPCs around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres.

**EXISTING TO NEW WALL**  
Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abuts the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

**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.

**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.

**LEAD WORK AND FLASHINGS**  
All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all jambs and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

**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 TVRs 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.

**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.

**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/rooflights 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 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.

**RAINWATER DRAINAGE**  
New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater to connect into existing surface water drain.  
ALL SURFACE WATER DRAINAGE BELOW GROUND TO BE AGREED WITH BUILDING CONTROL OFFICER.

**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.

### GROUND FLOOR CONSTRUCTION

65mm screed on 100mm rigid insulation by kingspan or similar approved on 1200mm gauge polythene dpm, dpm to be lapped in with dpc in walls on 150mm thick reinforced concrete floor slab on 50mm sandblinding on 200mm well consolidated hardcore to achieve a u value of 0.22 w/m<sup>2</sup>K.

### FLAT ROOF CONSTRUCTION

Bitumen flat roof covering/ fibre glass on 18mm marine plywood deck, 100mm rigid insulation on vapour membrane on 22mm marine plywood on 1 in 80 timber fillet on 47x145mm C16 timber joists underdrawn with 12.5mm plasterboard and skim. Roof to have 150mm Code 4 lead flashing at abutment with existing external wall/ roof with appropriate cavity tray and weepholes along its length.

### WINDOW AND DOOR FRAMES

Aluminium/ uPVC framed double glazed window and doors to client's specific requirements to be confirmed. All habitable rooms shall be provided with an area of clear glazing at least 10% of the floor area of the room.

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PROJECT  
PROPOSED REAR & SIDE EXTENSION  
16a LARKHOLME PARADE  
FLEETWOOD  
LANCASHIRE

DRAWING TITLE  
PROPOSED CROSS SECTION & NOTES

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DRAWING NUMBER 452-04 REV

PRE-TENDER ISSUE CONSTRUCTION ISSUE  
TENDER ISSUE AS-BUILT DRAWINGS