

**ROOF CONSTRUCTION**  
 All roof components are to be mechanically fixed in accordance with BS 5534 and mortar bedding as fixing will not be permitted.  
 Roof tiles to be Snowdon type by Logan Building Solutions on 25x38mm treated SW battens on non-tearable roofing felt to BS 747 on trussed rafters as per structural roof plan etc..  
 Valleys: - 225x25mm SW valleyboards each side of valley - 450mm wide code-4 lead gutter with ends dressed over tilting fillets and edges of lead welded.  
 Length of lead sections must not exceed 1500mm and all fixing details etc. to be as per Lead Development Association details and recommendations.  
 Roofing felt dressed over lead into gutter. Min gap between slates on meeting pitches to be 125 mm.  
 Cavities closed at eaves with 12.5mm Supalux bedded in mortar.  
 Minimum 50 mm air gap to be maintained at the eaves over insulation material.  
 Ridge ventilation provided along full length of ridge to give equivalent of 5mm continuous air-gap. This to be achieved using matching Turners ridge units factory fitted with ventilation mesh and installed continuously for the length of the ridge. These units to be fixed in strict accordance with manufacturers printed instructions.  
 Flat ceilings in roof structure to have 500 gauge vapour control layer to underside of rafters / joists. 200mm mineral wool insulation quilt laid between ceiling ties with a further 200mm mineral wool layer laid at right-angles over joist whilst maintaining minimum 50mm air space over same at eaves.

**CEILINGINGS**  
 Ground floor ceiling finished with 12.5mm SOUNDBLOC plasterboard and 3mm Carlite skim. First floor ceilings are to be finished using 9.5mm plasterboard and 3mm Carlite skim.

**FIRE PROTECTION TO STRUCTURAL STEEL**  
 Where structural steel sections are indicated as requiring fire protection on the drawings, the following measures are to be taken:  
 Intumescent Coating: Hamron Steelmaster WB fully tested and certified to BS476 parts 20/21 for 30 minute fire resistance to steel water-borne intumescent coating with the application thickness as set out by Hamron and being dependant on the steel section profile and exposed faces etc..  
 On completion of the application, a "Level 1 Certificate, as described by Hamron, is to be provided by the applicator as evidence of compliance with the Hamron specification. The applicator / contractor to permit access by a Hamron inspector to examine quality control records and take dry-film thickness readings etc. if required.

**FIRE PROTECTION FOR TIMBER**  
 Where timber finishes require surface-spread-of-flame treatment as indicated on the drawings, then the following to be applied:  
 Hamron WD-05 single pack thin film clear Intumescent Varnish applied in strict accordance with manufacturers instructions to achieve "Class 1" Flame Spread rating and "Class 0" Fire Propagation protection.  
 Note that this varnish should only be applied to previously untreated timber to achieve the above results.

**LADDER ACCESSIBLE FIRST FLOOR FIRE ESCAPE WINDOW**  
 At least one window at first floor level to be capable of being used as a means of escape in case of fire. These windows to be side hung, and have a clear opening of not less than 850mm high & 500mm in width. The sill should be between 800mm & 1100mm above finished floor level. All other rooms at first floor level are to have an emergency egress window with an openable area not less than 0.33m<sup>2</sup> with min vertical & horizontal clear opening of 450mm. The sill height of these windows shall be between 800mm & 1100mm from FFI or min 600mm in case of rooflight unit.

**FIRE DETECTION SYSTEM**  
 Mains powered self-contained smoke alarm with battery back-up to BS 5446 Part 1 2000. Mains powered self-contained Heat detectors with battery back-up to BS 5446- part 2- 2003. If more than one unit installed, they should be inter-linked.  
 The smoke alarm/s to be permanently wired to a dedicated circuit which is separately fused at the consumer unit. If a residual current device is included in the electrical installation, then the smoke alarm circuit to be connected before this.  
 Alarms to be fitted on a ceiling not less than 300mm from any wall or light fittings or, alternatively, on a wall between 150 and 300mm from the ceiling. All alarms should be easily and safely accessible.  
 They should be installed in circulation routes not more than 3m from any bedroom door nor more than 7m from a kitchen or living room doors as indicated on floor plans.

**SAP RATING (AS-BUILT)**  
 A further "as-built" SAP rating confirming that the (DER) value is less than the (TER) value will be calculated by the Client/Contractor/Builder using approved SAP 2005 software and forwarded to building control prior to them issuing a completion certificate.

**PVC-u RAINWATER GOODS'**  
 112mm 1/2 round gutters, 68mm round downpipes and all fittings and accessories to be black PVCu to BS 4576: part 1, 1989.  
 Downpipes to have spigot and socket joints with composite brackets fixing same to wall at 900mm vertical centres with sheradised screws.  
 Gutters to have snap-joints and be fixed to fascia with brass screws at 900mm centres.

**DECORATION NOTES ( for client guidance )**  
 All timber for painting to be carefully knotted and stopped.  
 Timber to be primed and given two undercoats and one full gloss coat for internal work and, primed and given one undercoat and two full gloss coats for exterior work. -Client to advise contractor of colour scheme  
 Metalwork to be primed and given one undercoat and one full gloss coat.  
 Plasterwork to given one mist coat and two full coats of emulsion paint.  
 New external render (smooth and roughcast) to have surface salts and other loose materials removed with stiff brush. Leave for 48 hrs and repeat if necessary. Apply one coat of proprietary sealer/primer and finish with two coats of external quality resin/solvent based masonry paint.  
 All paints to be obtained from one manufacturer and be applied strictly as per their printed instructions.

**CHIMNEY CONSTRUCTION**  
 Flue liners to BS 1181: 1972. All flues are to be 'Scheidel Air' ventilating type by Ulster Fireclays Ltd and installed in strict accordance with 'Scheidel's' guidelines. Any bends in flue to be formed with the correct angled flue liners supplied as above. Start of flue to be formed on pre-cast lightweight concrete throating block by Scheidel also.  
 Fireplace backs to be minimum 200mm.  
 Chimney to project min 600mm (excluding the pot) above roof if situated at the ridge, or 1000mm (excluding the pot) above highest contact point with roof, if greater than 600mm from ridge.  
 Height of any chimney above the roof not to exceed 4.5 times the least dimension of the stack. Insulated metal chimneys to comply with BS4543 parts 2&3: 1976.  
 Constructional hearth to be min 125mm thick concrete, ensuring a minimum of 250mm between top of hearth and floor insulation.  
 Hearth to project min 500mm from face of chimney breast and min 200mm beyond edges of fireplace opening.  
 Chimney flashings to be of milled Lead sheet to BS1178, 1982 colour marked for thickness and weight etc and as follows:-  
 Code-5 lead dpc tray (located as per section/ elevations) with 30mm upstands formed at edges and around flue pipes. Front and rear of tray to discharge over code-4 lead apron flashings.  
 Code-4 stepped lead flashings with code-3 lead slate soakers.  
 Brickwork is to be used locally around any flashings.

GENERAL ROOF FINISH & CONSTRUCTION AS PER SPECIFICATION NOTES

ROOF TILES/SLATES FIXED TO 50X38mm SOPWOOD BATTENS FIXED TO 50X38mm COUNTER-BATTENS FIXED ALONG TOP OF RAFTERS ON LAYER OF KINGSPAN NIL-VENT MEMBRANE

MINERAL WOOL INSULATION PACKED UNDERNEATH VENTILATION TRAY

CAST ALUMINIUM GUTTER & DOWNPIPES AS SPEC  
 15X195mm TREATED SW FASCIA BOARD  
 UPVC FASCIA COVERBOARD IN FINISH AS ELEVATIONS  
 UPVC SOFFIT BOARD FIXED TO 38x25mm BATTEN BOX-OUT AS ILLUSTRATED

12.5mm SUPALUX CAVITY CLOSER IN MORTAR BED

50X100mm TREATED TIMBER WALLPLATE  
 WALLS PLASTER FINISHED AS SPECIFICATION NOTES  
 CAVITY WALL & INSULATION AS PER SPEC NOTES

RENDER FINISH AS SPEC NOTES

**TYPICAL HEAD / EAVES DETAIL 1/10**

WINDOW AS PER SPEC NOTES

2-COURSE CONCRETE CILL ON DPC WITH DIMENSIONS & PATTERN TO MATCH WALL PROFILE

EXTERNAL RENDER FINISH AS SPEC NOTES

**CILL DETAIL 1/10**

CAVITY WALL CONSTRUCTION WITH INTERNAL AND EXTERNAL FINISHES ALL AS SPEC  
 DPC TO BE MIN 150mm ABOVE GROUND LEVEL AND LAPPED & BONDED TO DPM FROM FLOOR  
 STEPPED DPC AS ILLUSTRATED

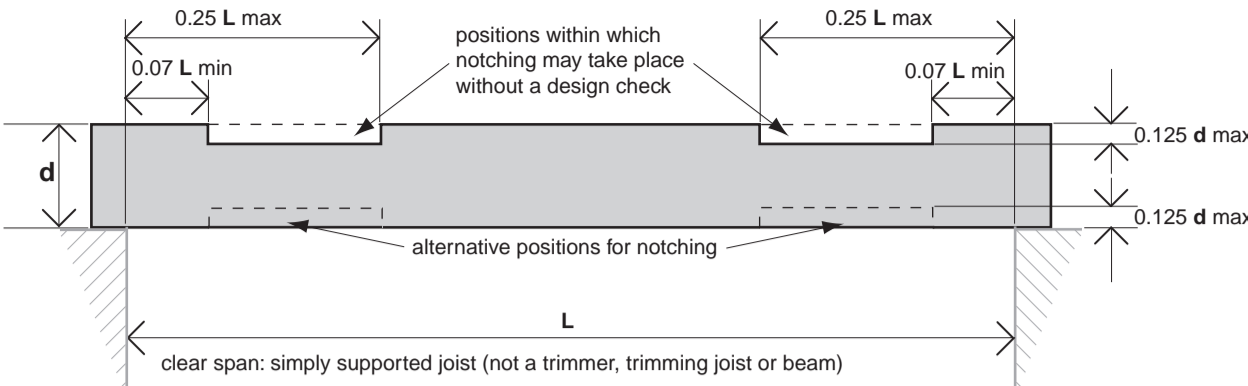
150mm INSULATION BOARD AS SPEC TO BE PLACED MIN 200mm BELOW DPM IN FOOTING PRIOR TO INSTALLING DPC/DPM

**FOOTING DETAIL 1/20**

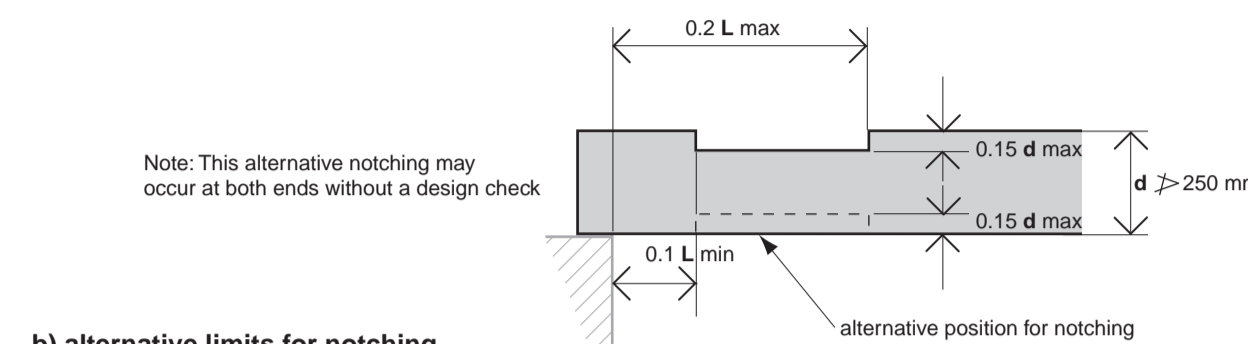
100mm KINGSPAN K8 INSULATION BOARD BEHIND CILL DPC TO PREVENT COLD-BRIDGING. IN-SITU CONCRETE FILLER BEHIND WITH TIMBER GROUNDS CAST INTO SAME FOR FIXING TIMBER CILL BOARD  
 PLASTER FINISH AS SPEC NOTES  
 CAVITY WALL CONSTRUCTION AS PER SPECIFICATION NOTES.  
 INSULATION AS DESCRIBED IN SPEC NOTES.

50mm RTU ULTRA-FLO SELF-LEVELING SCREED ON 500 GAUGE VAPOUR BARRIER  
 125mm HIGH-DENSITY FLOOR INSULATION BOARD AS DESCRIBED IN SPEC ON 150mm IN-SITU 25mm CONC. FLOOR SLAB WITH A252 MESH ON 1200 GAUGE DPM  
 LAPPED AND BONDED TO DPC IN WALLS ON 25mm FINE LAYER OF BULKING ON MAX 25mm LAYER OF MECHANICALLY COMPACTED HARDCORE  
 LAYER OF A-393 MESH REINFORCEMENT TO BE INCORPORATED INTO FLOOR SLAB WHERE DEPTH OF FILL IS GREATER THAN 600mm

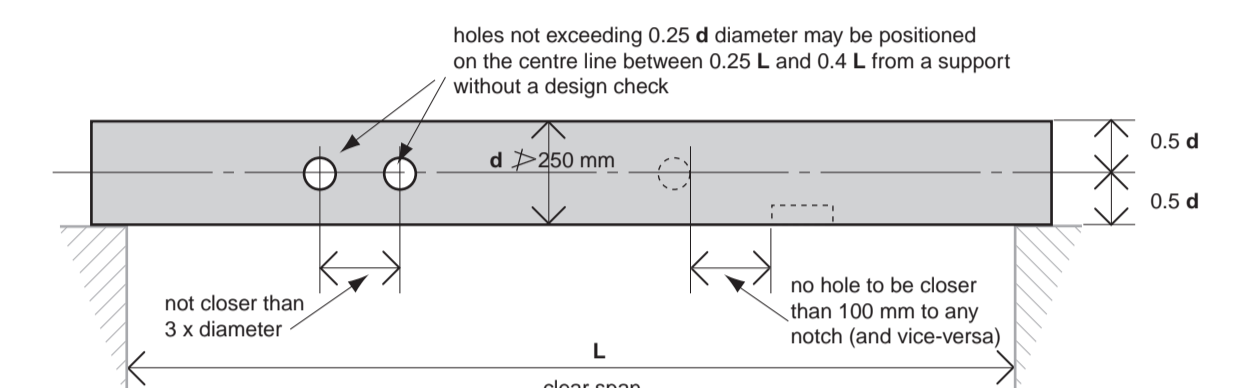
LEAN MIX CONCRETE POURED IN CAVITY AS A SUITABLE MEANS OF CAVITY FILL  
 ADEQUACY OF FOUNDATIONS TO BE DETERMINED ON SITE BY THE LOCAL BUILDING CONTROL SURVEYOR PRIOR TO ANY BUILDING WORK BEGINNING  
 25mm<sup>2</sup> CONC. FOUNDATIONS TO HAVE 2 LAYERS OF A-393 MESH WHERE ANY CHANGE IN BEARING STRATA OCCURS



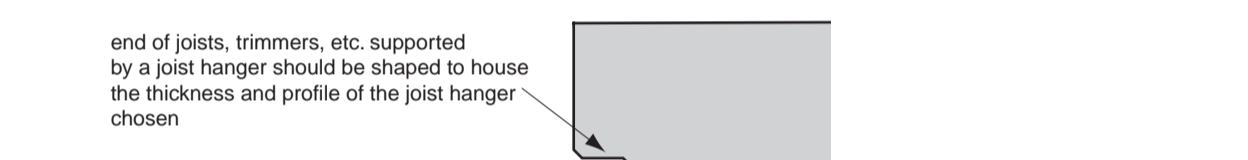
a) limits for notching



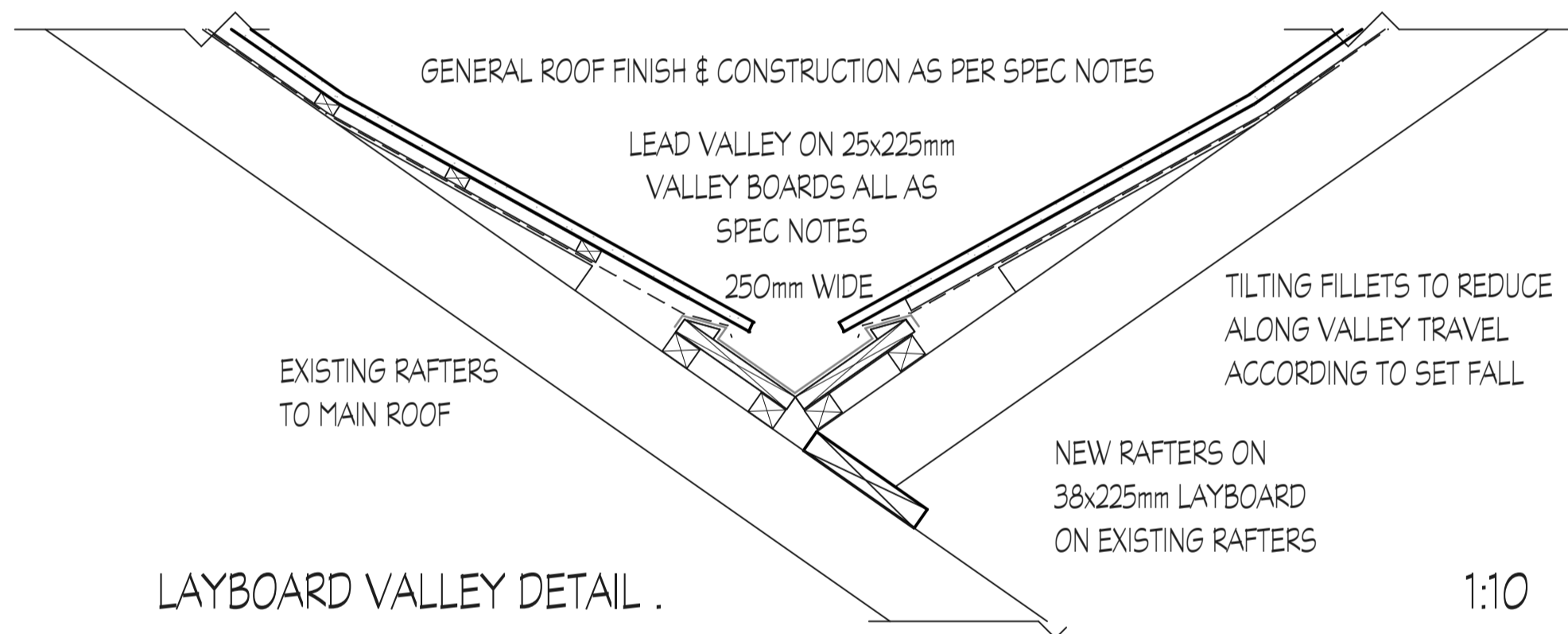
b) alternative limits for notching



c) limits for drilling



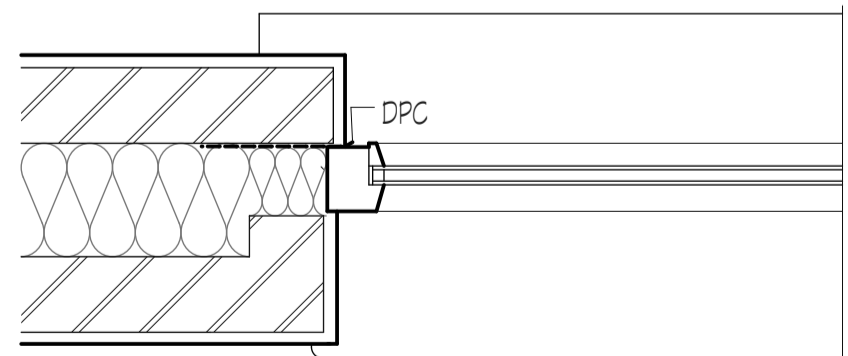
d) end trimming



**LAYBOARD VALLEY DETAIL 1:10**

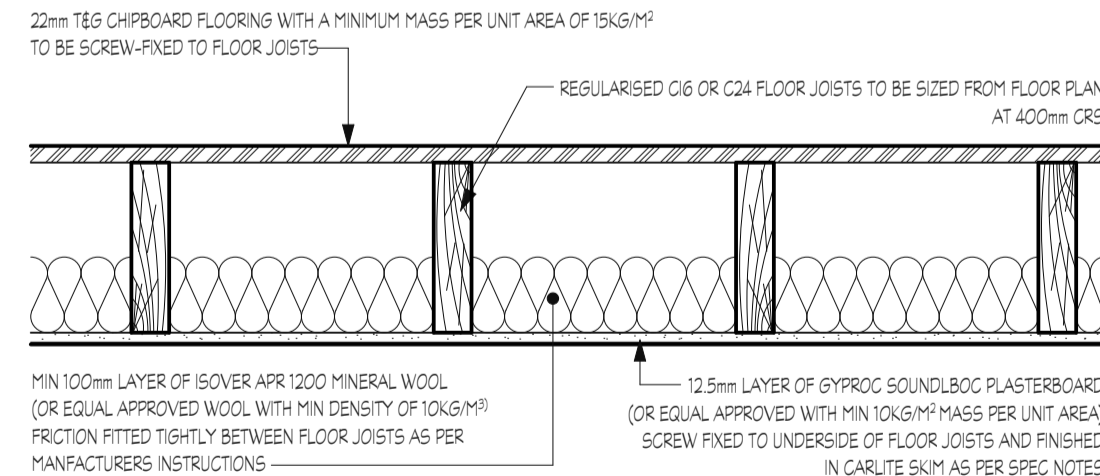
WINDOWS AS PER SPEC NOTES.  
 TWO-COURSE PC CONC CILL ON DPC  
 RENDER AS PER SPEC NOTES

40mm KINGSPAN K8 INSULATION BOARD TO PREVENT COLD BRIDGE

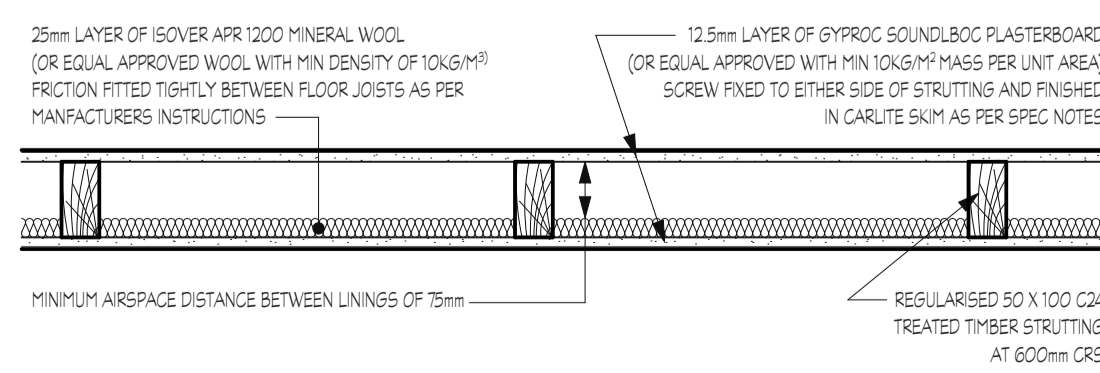


CAVITY WALL CONSTRUCTION AS PER SPECIFICATION NOTES & WITH EACH JAMB FORMED BY RETURNING THE INNER LEAF CAVITY CLOSER TO THE PLAN RELATE TO THE OPENING IN THE OUTER LEAF.

**JAMB DETAIL 1/10**



DETAIL THROUGH FIRST FLOOR STRUCTURE 1:10



DETAIL THROUGH G-STUD PARTITION STRUCTURE 1:10

**HEATING SYSTEM NOTES**  
 All controls to the hot water storage and heating system shall comply with publication "Domestic Heating Compliance Guide".  
 The ground floor heating system is to be underfloor type and to be installed by an underfloor heating specialist. Underfloor heating pipes are to be PE-RT type or equal approved. First floor is to have radiators to be sized adequately by specialist in style as selected by client. Oil fired boiler to be Warmflow K90HE model with 92.4% efficiency, installed in proprietary 'Kabin-Pak' outside, as located on floor plan.  
 The heating system to be fitted with a time clock and flow control or other anti cycling device. The boiler shall also be thermostatically controlled in such a way as to provide a method of heat zoning between living and sleeping areas.  
 All heating and hot water pipes to be fully lagged against heat-loss using Armaflex "Energy Conservation" pipe insulation with wall thickness to match pipe diameter or with a material with a thermal conductivity of min 0.045 W/mK all in accordance with the relevant requirements of BS 5422: 1977.  
 The hot water pipe from boiler to dwelling is to be 'micraflex' insulated type.  
 Hot water storage cylinder to be pre-insulated type to ensure heat loss maintained below 90W/m<sup>2</sup> of the surface area of the cylinder with such insulation applied in accordance with the relevant requirements of BS 699: 1984, BS 1566: 1984 or BS 3198: 1981.  
 The outlet from the storage vessel should be fitted with a device, such as an in-line hot water supply tempering valve in accordance with BS EN 15092.  
 The in-line hot water tempering valve should be set/adjusted to ensure that the temperature supplied to the domestic hot water distribution system does not exceed 60 °C.  
 The hot water supply temperature to a bath should be limited to a maximum of 48 °C by the use of an in-line blending valve.  
 All fixed services shall be commissioned by a suitably SNIPEF & Gas Safe registered plumber and copies of certificates forwarded to building control & the client upon completion  
 Same plumber is to also provide readily understandable information to the Client regarding the efficient operation and maintenance of fixed building services.

**PLUMBING**  
 All plumbing to be installed as required to complete a full hot & cold pressurised water service to the dwelling. Copper pipework for hot, cold and mains water supply to be to BS2871 part 1 table "X" Kitemark certified for above usage.

**SANITARY APPLIANCES**  
 Size, type and manufacturer of all sanitary appliances to be selected by client for installation by contractor.  
**ELECTRICAL:** The contractor to take all necessary steps, in liaison with the NIE if required, for the temporary isolation and subsequent reconnection of the electrical supply during the works, and pay any charges arising.  
**WATER:** The contractor to determine the location of the incoming water mains and ensure the protection of same during the works.  
 The supply should be maintained and may be used as necessary for the works.  
**DRAINAGE:** All existing private sewers to be completely removed including all associated manholes and pipework.  
**INSURANCE'S:** The contractor to provide all necessary insurance's including public and employee liability cover.

**STAIRCASE CONSTRUCTION**  
 Timber staircase by specialist manufacturer to be formed in oak and to be contemporary style. Formed with 14 equal risers of 186mm, and parallel goings of 230mm all manufactured in oak. All newels to be 92mm & spindles to be 44mm and square in section with subtle carving work as per manufacturer. Pitch = 39° approx. Overall width of stair to be 900mm.  
 Minimum head-height of 2000mm measured vertically above pitch-line to be maintained.  
 Stair hand rail to be 900mm vertically above pitch line with the handrail around the landing to be 1100mm above the finished floor level. An additional handrail to be provided to side of staircase where tapered treads have greatest going. Tapered treads are to have a minimum tread of 50mm.  
 No part of balustrade to allow the passage of a 100mm dia sphere, and should be constructed as to be not readily climbable.  
 Stair to be of closed tread construction with 12.5mm plasterboard, 8mm bonding and 3mm skim coat to soffit.  
 Selected manufacturer to supply all spindles and hand rails etc. for the landing balustrading etc.  
 Handrail and balustrading to withstand a horizontal force applied at a height above floor level of 1100mm, irrespective of the actual height of the rail, of 0.36 kN/m.

**PLASTER FINISHES**  
 All internal blockwork to be finished with 13mm sand / cement undercoat and 3mm Carlite finish. Studs faced with 9.5mm plasterboard and 3mm Carlite skim coat.  
 Ground floor ceilings finished with 12.5mm Gyproc Soundbloc board / lath with 8mm Carlite bonding and 3mm Carlite skim coats.  
 First floor ceilings (flat and pitched) finished with 9.5mm plasterboard 8mm Carlite bonding and 3mm Carlite skim.  
 Expanet galvanised plaster beads to be used at all external corners in plasterwork inc. window/door reveals. Junctions of plasterwork on differing backgrounds to be reinforced with jute scrim cloth. All roof/window/door abutments with plasterwork shall be sealed using contega tape.

**SOLID GROUND FLOOR CONSTRUCTION**  
 50mm RTU Ultraflo self leveling screed on 500 gauge separating membrane on 125mm "Kingspan Kooltherm K3" insulation board on 1200 gauge dpm on 150mm in-situ concrete floor slab with A252 fabric mesh on 1200 gauge dpm on blinding layer on well consolidated hardcore compacted in max. 215mm layers. Where depth of fill greater than 600mm a layer of A393 steel mesh to be incorporated into concrete slab.  
 Provide 25mm vertical EPS boundary insulation to slab edges at external walls as per construction detail. Dpm's to be lapped and bonded to dpc's in walls and to Bituthene 500 membrane where details dictate.

**RADON PREVENTION MEASURES**  
 A continuous gas-impermeable membrane to be provided across the whole of the building including the floor, walls and cavities. This to be achieved by the following method. 1200 gauge dpm in ground floor construction to be fully lapped and bonded to stepped dpc in cavity walls and dpc's in internal solid walls. Where pipes or services enter the building through the floor the junction where they pass through the membrane to be sealed with proprietary radon proof adhesive tape.

DATE	DESCRIPTION	ISSUED DRN
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E		
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B		
A		
19/04/16	BUILDING CONTROL APPLICATION DRAWINGS	19/04/16 PH

HAWTHORNE

ASSOCIATES

<p>architecture    civil engineering    project management    town &amp; country planning</p> <p>2-3 The Beeches, Grove Road, Spa, Co. Down BT24 8RA</p>	<p style="text-align: center; font-weight: bold;">PROPOSED 2 No PAIR OF SEMI DETACHED HOUSES AT 11 ULSTER AVENUE, ANNALONG CO DOWN</p> <p style="text-align: right;">PROJECT NO: <b>16-1606</b>    DRN NO: <b>03BC</b></p> <p style="text-align: center; font-weight: bold;">CONSTRUCTION DETAILS AS PROPOSED</p> <p style="text-align: right;">CLIENT <b>BALLYCROSS CONSTRUCTION</b></p>	<p>PROJECT NO: <b>16-1606</b>    DRN NO: <b>03BC</b></p> <p style="text-align: center; font-weight: bold;">CONSTRUCTION DETAILS AS PROPOSED</p> <p style="text-align: right;">CLIENT <b>BALLYCROSS CONSTRUCTION</b></p>
<p>T: 028 9756 1488 F: 028 9756 5858 E: paul@hawthorneassociates.co.uk</p>	<p>DATE <b>APR 2016</b></p> <p>SCALE <b>N/A</b></p> <p>DRAWN BY <b>PH</b> (OR AS STATED)</p>	<p>T: 028 9756 1488 F: 028 9756 5858 E: paul@hawthorneassociates.co.uk</p>

**PLANNING APPROVAL**  
 No deviation in any form from the approved plans is allowable as any alteration with regard to siting, finishes, door/window positions, heights, levels, etc. will be considered by the Planning Service to be a breach of the approval. The breach becoming the subject of Planning Enforcement resulting in possible demolition of the offending works and possible fine via the court system.  
**THESE ARE PRELIMINARY DRAWINGS!**  
 The client/contractor or any other person who carries out instruction from these drawings will be doing so at their own risk.  
 The statement remains valid until we, Hawthorne Associates are in receipt of building control approval of plans.