

SPECIFICATION OF BUILDING WORKS IN REFERENCE TO PLAN 1710 ABCD

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PROPOSED DEMOLITION OF OUTBUILDINGS AND TO BUILD A TWO-STOREY REAR EXTENSION

All work to be carried out to the satisfaction of the Building Control Officer and in accordance with the latest amendments to the building regulations. A building control certificate shall be issued upon completion.

The original house is a semi-detached property built of outer leaf 100mm brickwork, 50mm cavity & 100mm internal brickwork .

The existing main roof is a traditional timber construction, roofing felt, tandalised batten & slate finish.

Timber purlins, 225mm x 75mm together with 100mm x 50mm rafters.

Existing upper floor joists run side to side & appear to be 150mm x 50mm.

The ground needs to be excavated & exposed to determine size & depth of foundations, also to reveal & determine any drain runs.

Demolish the two rear single storey out buildings and clear away all debris.

The existing ground floor is set on two levels, from hallway through kitchen is a 150mm step down. The existing kitchen floor should be levelled with a bituminous compound, the new extension floor should be level to this.

Excavate external area to give a minimum of 150mm from ground level.

FOUNDATIONS:-

Dig out foundation strip to a minimum of 900mm deep or to the satisfaction of the building officer, Lay concrete foundation (1:3:6) 650mm wide x min 150mm deep,

Two leaves footing bricks or suitable trench blocks with 150mm cavity, facing brick external leaf up to DPC. Weak mix concrete in cavity to within 150mm from DPC (150mm from ground level to DPC).

Dig out under the existing inner wall to reveal the original footing, spread concrete mix under the footing to underpin and use for the new internal leaf with 125mm cavity

BASE :-

Dig out base to incorporate 250mm compacted hardcore, 50mm blind sand, 1200 gauge visqueen barrier, 100mm Kingspan Thermafloor TF70 slabs tape jointed, 25mm Jab slab polystyrene upstands all round external perimeter, 1200mm visqueen barrier lapped over DPC, 150mm concrete slab, finish floor with 65mm sand & cement fibre screed.

Floor U value of 0.18 W/m².

DRAINS :-

Any drains that pass under buildings to be encased in 100mm concrete. Any drains passing under new walls to have concrete lintels over.

New inspection chambers & connection to existing underground pipes if required to carry any new soil waste.

New downstairs W.C and upstairs En/Suite waste would travel out and into the existing soil stack, connections to the stack should have accessible covers.

Shower, bath and basin wastes to have external boss connections into the stack.

Use deep seal anti-vacuum traps on all waste fittings.

All new drain runs from soil waste and surface water to be decided on site with the building inspector.

Hot and cold water supplies extended to each area.

Pipes to be sleeved when passing through walls and clipped accordingly.

All underground and soil pipework shall be 100mm diameter with falls of 1:40, surrounded by pea shingle, rodding access to be provided. All underground drainage to comply with BS7158 & BS801.

The rainwater off the new roof is to travel through PVCU downspouts into a new surface water gully.

If there is any need for a soakaway then a 1.0m x 1.0m minimum pit to be dug out a minimum of 5.0m from the extension, this to have a geotextile material at the bottom & sides, filled with pea gravel to 300mm from surface & topped with a layer of geotextile covering. The 100mm soil pipe would run into the soakaway with a fall of 1:40 & drop into the gravel. Top off with turf.

MAIN STRUCTURE :-

Outside leaf to be 100mm matching face brick, 100mm solar thermal block internal leaf, 125mm cavity with 75mm Kingspan Thermawall TW50 + 50mm clear cavity. U value of 0.18 W/m²K.

'Thermabate', or similar cavity closers fitted to openings.

Fit Horizontal DPC to main abutments.

Walls ties to be stainless steel, 750mm ctrs horizontally, 450mm vertical, 225mm ctrs at reveals & corners in staggered rows, to be in accordance with BS 1243.

Bluebird or similar stainless steel butterfly ties to be fitted vertically to internal block work leaf.

UPPER EXTENSION FLOOR :-

Floor joists to be 150mm x 47mm C16 @ 400mm ctrs and to run level with the existing upper floor.

Chipboard flooring sheets, 2400mm x 600mm x 22mm to be laid onto the new floor.

STEELWORK :-

Steel beams to be installed for opening through kitchen into new dining area.

Calculations to be provided for all steelwork & padstones.

All steelwork to be encased in two layers 12.5mm plasterboard or 1 layer 15mm pink fireboard & skimmed to give 30 minutes fire resistance.

LINTELS :-

CN7 or similar, insulated to give U value not exceeding 1.2 W. end bearings to be 150mm minimum. To be installed to manufacturers details with the inclusion of a cavity tray, stop ends & plastic weep inserts
Concrete 'Naylor' lintels, 100mm x 150mm on all existing inner walls.

WINDOWS & FRENCH DOORS :-

UPVC Double Glazed windows and bedroom 3 French inward opening doors, to match the existing & to achieve a U value of 1.40 W/m²K. Soft low - E glass 16mm argon filled.

Toughened or laminate safety glass to BS 6206. & part K section 5 (glazing in critical locations) of the current building regulations, within 1500mm above floor level to doors & side panels, within 300mm of door openings & within 800mm above floor level to windows.

Side glass door vision panel and utility windows to be of obscured glass.

BI-FOLD DOORS:-

Aluminium bi-fold doors installed to the rear ground floor elevation, glazing to comply with the above.

VENTILATION :-

Background ventilation – controllable background ventilation via trickle vents to BS EN 13141- 3 within the window frame at a rate of min 5000mm². Openings to be in excess of 1/20th of floor area.

ROOF :-

Wall plates to be 98mm x 47mm S/W fixed to internal leaf by means of galvanised bent straps @ 1.8m ctrs & screw fixed.

Roof rafters 198mm x 47mm C16 @ 400mm ctrs birds mouth over wall plate and purlins, fixed to 150mm x 47mm top ridge beam

Fix timber purlins both sides under rafters, gable to gable above ceiling height, use 225mm x 75mm

Ceiling joists to be 125mm x 47mm C16 @ 400mm ctrs, use 98mm x 25mm timber bracings and hangers.

Form shared box gully with neighbouring property number 80 using 18mm external ply dressed with code 4 lead, draped in trough and under tiles a minimum of 250mm.

All lead work to be code 4.

Roof slate to match existing roof, laid on Tanalised 50mm x 25mm battens, laid on 'TYVEK' or similar breathable felt.

Matching Facia & vented soffit boards.

Insulate loft areas with two layers of 150mm ROCKWOOL cross bonded to give 'U' value of 0.15 Wm²/K.

VELUX ROOF LIGHTS :-

Two Velux roof lights to be installed and to give a U value of 2.20 W/m²K.
Include EDZ flashing kit.
Timber rafters and trimmers to be doubled up around roof light openings using M/S galvanised joist hangers.

LEAD FLASHINGS :-

Code 4 lead flashings fixed to abutments with a minimum 150mm lap.

RAINWATER :-

New rainwater goods to be matching, PVCU gutters taken & connected into 65mm PVCU downspouts.

STUDDING :-

S/W timber 75mm x 47mm studding @ 450mm ctrs, slab Rockwool insulation laid between, 12.5 plasterboard, scrim & skim.

INTERNAL PLASTERING :-

Internal walls to be Dot & Dabbed, ceilings to be screw fixed with 12.5 thistle board & neat skim.

ELECTRICS :-

All electrical work carried out to meet the requirements of part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under 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 with a copy each given to the council & householder. Low energy lighting to be installed.

SMOKE DETECTORS :-

Mains operated smoke/heat detectors with battery back up & linked to hall, landing and any new areas to be installed to BS 5446-1:200 & BS5839 6:2004 to at least a grade D category with battery backup.
Smoke alarms should be sited so there is an alarm in the circulation space on all levels / storeys & within 7.5m of the doorway to every habitable room. If ceiling mounted they should be 300mm from walls & light fittings.

EN/SUITE & W.C EXTRACTOR FANS :-

En/Suite and W.C to have mechanical ventilation to outside air with minimal extract rating of 15 Ltrs / second and to be connected via light switch & have 15 minutes over run. Internal doors to have a 10mm gap below door to provide adequate air circulation.

KITCHEN EXTRACTOR FAN :-

Kitchen to have mechanical ventilation with an extract rating of 60 ltrs / second or 30 Ltrs / second if adjacent to a hob or external air.

HEATING :-

Extend heating service from the existing system by way of double panel convector radiators with TVR's. Any pipework passing through solid walls is to be adequately sleeved and insulated.

If a new gas Combination boiler is to be fitted, then this should be carried out by a gas safe registered person.

Engineer to provide a gas safe certificate to hand copies over to the householder & building surveyor.

JULIET BALCONY :-

A galvanised steel Juliet balcony to be fitted at first floor level, height of balcony to be no lower than 900mm with rails at 90mm ctrs, fixed to the brickwork with masonry fixings.

ADDITIONAL

ESCAPE WINDOWS :-

Provide emergency egress opening windows to any newly created habitable first floor rooms, to have an unobstructed openable area of min width 450mm & 750mm height to ensure 0.33sq of clear opening. The bottom of the openable area should not be more than 1100mm above the floor.

DRAINS :-

Drains to be inspected upon commencement so as to lay out new drain runs & design any new inspection chamber position.

Underground drainage to be 100mm diameter UPVC proprietary pipework & to give a fall of 1:40. Surround pipes in pea shingle. All underground drainage to conform with BS7158 & BS801.

CAVITY TRAYS :-

Cavity trays installed over wall abutment openings with plastic weep inserts over lead flashings.

PART L

ELEMENTS OF CONSTRUCTION ON AN EXTENSION, U VALUES.

ROOF 0.15 W/m²K

WALLS 0.18 W/m²K

FLOOR 0.18 W/m²K

WINDOWS 1.40 W/m²K

ROOFLIGHTS 2.20 W/m²K

DOORS – 60% OF INTERNAL FACE GLAZING 1.40 W/m²K