

SPECIFICATION OF BUILDING WORKS IN REFERENCE TO PLAN 1539 AB

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SINGLE 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 by outer leaf 100mm rendered brickwork, 50mm insulation filled cavity & 100mm internal leaf.

Internal walls downstairs are of solid construction.

The existing roof is constructed with a traditional timber frame using rafters & purlins. There is a small outrigger to the upper rear elevation, the upper rear elevation is supported with steel beams under.

Breathable felt, tantalised batten & concrete roof tiles.

Existing upper floor joists appear to be 200mm x 50mm & run side to side.

The rear elevation of the adjoining semi already has a single storey extension, which protrudes 6.0m from the rear wall of the property.

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) 600mm wide x min 150mm deep,.

Two leaves footing bricks or suitable trench blocks with 100mm cavity, facing brick external leaf up to DPC. Weak mix concrete in cavity to within 150mm from DPC (150mm from ground level to DPC).

BASE :-

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

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 chamber & underground pipes installed onto existing soil run & to carry soil waste from new ground floor W.C, the pipe would run under the base units in the newly formed utility room to a new external stub-stack.

Make good underground pipework. All 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. Rain water off the new extension roof to travel through PVCU downspouts into extending the existing surface water gullies at the rear elevation. If there is need for a soakaway then a 1.0m cubic pit to be dug out a minimum of 5.0m from the extension, this is 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 block-work, 100mm Fibrelite or similar block internal leaf, 100mm cavity between filled with insulated cavity slab & to achieve a U value of 0.28W/m²K. Thermabate or similar cavity closers fitted to openings.

Outside skin to be 'K' rendered to match the existing.

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.

STEELWORK :-

Steel beam to be installed so as to take out the existing patio doors & window, the beam should be fitted under the existing timber wall plate (screw fixed through beam) to support the eaves of the existing roof & to rest the new flat roof timber joists.

A steel fabricated support beam is required over the new Bi-Fold doors (incorporating a steel plate under the UB).

Calculations to be provided for steelwork & padstones.

See separate calculations.

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

BI-FOLD DOORS:-

Aluminium Bi- Fold doors in black fitted, glazing to be toughened & to meet part K section 5 of the current building regulations BS 6206 (glazing in critical locations, within 1500mm above floor level to doors & side panels, within 300mm of door openings & within 800mm above floor level to windows).

To meet a minimum U value of 1.8W/m², soft - low E glass, 16mm argon filled.

ROOF LANTERN:-

Glass lantern roof-light to be installed to flat roof with a minimum U value of 1.6W/m², double-glazed, energy rating minimum band C.

Fix the lantern to the pre-formed timber kerbs.

Seal all around fixings.

VENTILATION :-

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

ROOF :-

Flat roof to be constructed with 198mm x 47mm C16 timber joists @ 400mm ctrs, resting on steel beam over to inner block-work of the extension, resting on 100mm x 47mm wall plate fixed to block-work with M/S galvanised bent restraints.

Timber firrings fixed to the top of the joists with a 1:60 fall to gutters.

External 19mm ply fixed to firrings.

Finish roof with a GRP fibreglass system together with all pre-formed upstands & flashings.

Ensure flashings go under the existing roof tiles a minimum of 300mm.

Fix 120mm Kingspan insulation between joists & allow a minimum 25mm air gap.

Screw-fix 32.5mm insulated plasterboard to underside of joists for ceiling.

Double up rafters & trimmers around the roof light opening using M/S joist hangers.

Form a timber tray to support the roof lantern (200mm minimum from roof surface) from 75mm x 47mm timber frame & fix external 19mm ply, insulate between the studs with 50mm Kingspan insulation then fix 32.5mm insulated plasterboard to the inner frame.

UPVC matching Facia with vented soffit boards.

RAINWATER :-

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

STUDDING :-

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

INTERNAL PLASTERING :-

Internal walls to be Dot & Dabbed, ceilings to be screw fixed with 12.5mm 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 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.

W.C EXTRACTOR FAN :-

W.C to have mechanical ventilation to outside air, with minimal extract rating of 15 Ltrs / second, to be connected via a light switch & to have a 15 minutes over-run.

Ducting to be taken out via utility room (boxed in) to outside air.

Internal doors to have a 10mm gap below door to provide adequate air circulation.

KITCHEN/ UTILITY ROOM EXTRACTOR FANS :-

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. Utility room extractor fan to be extracted to outside air at a rate of 30L per second.

HEATING :-

Provide double panel convector radiators with TVR's. Any pipework passing through solid walls to be adequately sleeved & insulated. All works to be carried out by a competent heating engineer.

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 to lay out new drain runs & design new inspection chamber positions.

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.

LEAD WORK:-

Any roof lead work to be code 4 with a minimum upstand of 150mm.