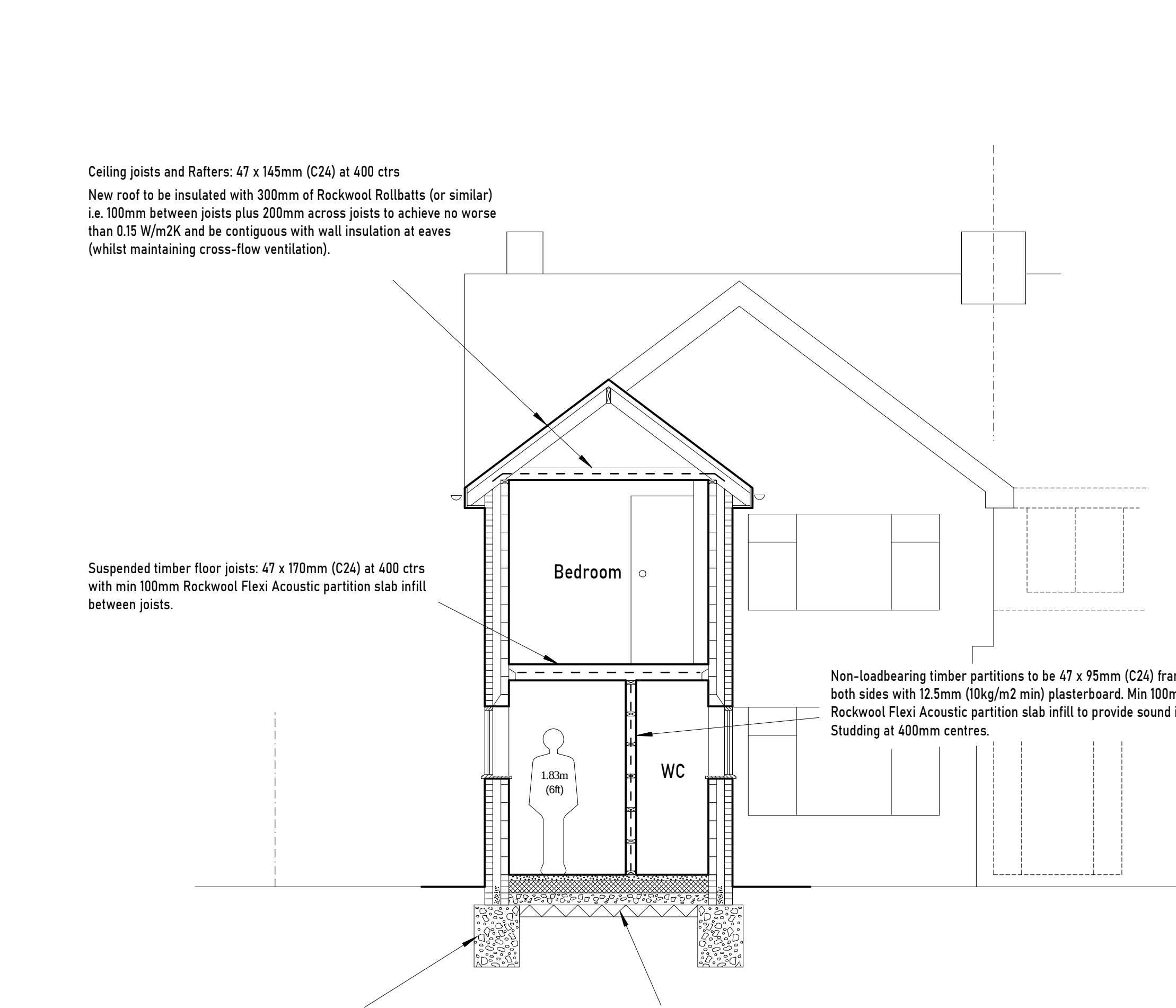




New foundations to be 600mm wide, 1000mm deep (min) assuming medium shrinkage subsoil, but at least to level of existing adjacent buildings and invert level of all drains passing within 1m of new works. Concrete base to be 600mm thick (min) with a layer of A393 mesh spaced 75mm from the bottom with conc spacer blocks.

Depending upon subsoil conditions, the foundation depth may need to be increased in accordance with NHBC practice note 4.2. Foundations may also require a Ground Investigation Report (GIR) and/or additional structural design (by specialists) in accordance with recognised guidelines for building close to trees should high shrinkage sub-soils be encountered.

Heave protection required for all foundations more than 1.5m deep. 150 x 100mm r.c. lintel to be provided to each wall skin at point of any pipe crossing.

Contractor to ensure all necessary temporary support, edge guarding and Personal Protective Equipment is provided to ensure the safety of all people at risk from this activity.

Notwithstanding the representation on the drawings, the foundations are to meet the requirements of the Local Authority in all respects.

Existing foundations to be exposed to check their adequacy to take the additional load imposed by the new structure

Solid floors to be 75mm screed layer on damp proof membrane on 150mm Celotex PIR insulation board (turned-up at slab edges to prevent cold bridging) on 150mm concrete with A393 mesh on 1200g damp proof membrane (contiguous with dpc's) on sand blinding on 150mm hardcore to achieve 0.18W/m2K or better. If the new floor obstructs existing air vents, ducting to be provided to maintain cross-flow ventilation to new 225mm air vents at 2m centres.

If the property is within a 5-10% Radon Gas area, 'basic' radon protection is required i.e. 1200g gas proof membrane and Radon Cavity Barrier (Z shaped or Rise and Fall) to all exterior cavity walls laid and integrated with oversite membrane to form continuous protective arrangement in accordance with manufacturer's instructions. Preformed internal and external corners and stepped unit where required.

Existing external walls assumed to be brickwork, insulated cavity, and loadbearing blockwork. Blockwork required to capable of supporting new structural steelwork. Contractor to confirm upon removal of finishes.

New walls to be single brick to match existing, 100mm cavity with 90mm "Thermaclass Cavity Wall 21", 100mm 'Thermalite Shield' block, 12.5mm plasterboard via 'dot & dab' and skim finish. Movement and expansion joints to be incorporated as necessary. Providing a U-value of 0.18W/m2K or better.

3.6N blocks to be used for all walls up to two-storey high. Engineering bricks and dense concrete blocks up to DPC level. For walls in excess of two-storeys, 7N blocks to be used at ground floor level.

Ties: 750 horizontal, 450 vertical, and double at all reveals. Reveals to have Thermabate Insulated Cavity Closers to prevent cold bridging and provide vertical dpc. Expamet stainless steel wall starters (or similar) to bond new masonry to existing building. All cavities to be clear 225mm below dpc level and closed at roof level. Minimum length of brickwork returns 665mm.

1.2m galvanised steel straps and lateral straps for roof, floors and wall plate to be provided at not greater than 2000mm centres, having a cross section of 30 x 5mm.

Contractor to ensure all scaffolding is securely attached when working at height. All Personal Protective Equipment to be provided to all people at risk from this activity to protect against falling objects.

Beams perpendicular to the wall to have 100mm (min) end bearings (beams linear to the wall to have 150mm end bearings unless shown otherwise) on C30 concrete padstones, painted with 2 coats of red oxide and covered with 12.5mm GYPROC FIRELINE plasterboard to achieve 30 minutes fire resistance, using batten fixings where necessary. Contractor to provide all lifting equipment, temporary support and Personal Protective Equipment for all people impacted by the installation of heavy steel beams, particularly when working at height.

New areas of construction are to be constructed with no significant thermal bridges or gaps in the insulation layer(s) e.g. at joints between floor joists & walls and around window and door openings (in accordance with "Limiting thermal bridging and air leakage: Robust construction details for dwellings and similar buildings 2002"). The contractor to provide a suitable report, if required, by the Local Authority, to confirm that the work has been carried out in accordance with these details.

All electrical works required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so. Prior to completion, Building Control should be satisfied that Part P has been complied with. This may require an appropriate BS 7671 electrical installation certificate to be issued for the work by a person competent to do so.

Switches/sockets to be fitted 450-1200mm above finished floor level.

Low energy lighting to be provided in compliance with Approved Document L1 with a minimum luminous efficacy of 75 light source lumens.

GAS SAFE registered person to carry out all relevant work (including the repositioning of an existing gas-fired boiler) and issue a commissioning certificate. An existing boiler in its new position must have an efficiency no worse than when it was in its previous position.

All solid, gas and oil combustion devices will require a carbon monoxide detector to be positioned in the same room as the appliance, on the ceiling at least 300mm from any wall. If located on a wall, as high as possible (above any doors or windows) but not within 150mm from a ceiling and between 1-3m horizontally from the appliance.

New radiators to be fitted with thermostatic valves

Lintels to be heaviest manufactured gauge unless shown otherwise.

Triple joists bolted at 600 ctrs for trimmers, and under studding.

All structural timber to be C24. All structural steelwork to be S275.

Code 4 lead flashings to be used throughout.

All timber joists (e.g. floor, roof, ceiling etc) with spans in excess of 2.5m to have solid or herringbone strutting.

Cavity trays at all abutments.

Cavity infill to finish at least 225mm below the level of the lowest dpc.

DPC to be at least 2 brick courses above surrounding ground level

No development to overhang the boundary (incl. foundations).

All ceilings to be 12.5mm foil-backed plasterboard.

	S BIDDLE Ltd		Stephen Biddle BSc CEng FICE	
	Email: stephen@sbiddle.co.uk		Mob: 07864 122 313	Web: www.sbiddle.co.uk
Client	Mr & Mrs M. Purton			
Address	51 Chaseside Avenue, Twyford, Reading RG10 9BT			
Drwg No	PURTON-0226-04			Scale: (A2) 1:50
Title	PROPOSED SECTION A-A			
	1m	2m	3m	4m