

ELECTRICAL INSTALLATION

All electrical installation to be in full accordance with BS 7671: 2001 and the latest edition of the IEE wiring regulations, and should be carried out in accordance with current installation techniques applicable to the material and equipment being used. All electrical works shall also comply with the Building Regulations Part P.

Note that all cables which are covered or surrounded with thermal insulation to be de-rated in accordance with Appendix A of BRE 'Thermal Insulation: Avoiding Risks' 2002 edition.

All down-lighters in ground floor ceiling voids are to be either boxed in with 12.5mm plasterboard or fitted with an intumescent cover to maintain half hour fire resistance.

Services and fittings within the roof space are to be protected from overheating. Lighting circuit cables to be 1.5 sq mm min where within insulation - all other cable runs to be supported by and clipped to roof timbers and be kept clear of insulation.

Any external light fittings should have automated controls, and/or be capable of only taking lamps having a greater efficacy of greater than 40 lumens per circuit-watt.

Provision of additional light fittings, switches and power sockets to be determined on site.

Electrical installations should be inspected and tested during and at the end of installation, before they are taken into service to verify that they are safe and they comply with BS 7671: 2001. This report shall be signed by a competent person who should be a Corporate Member of the Institute of Electrical Engineers (IEE) or enrolled with the National Inspection Council for Electrical Installation Contracting or Electrical Contractors Association.

The report should show that the installation has been:

Inspected and verified that the works are in compliance with the appropriate British Standards and not visibly damaged or defective so as to be unsafe.

Tested to check satisfactory performance in relation to continuity of conductors, insulation resistance, separation of circuits, polarity, earthing and bonding arrangements, earth fault loop impedance and functionality of all protection devices including residual current devices.

For extensions, material alterations and changes of use, the installation must include:

Such works on the existing fixed electrical installation in the building as are necessary to enable the additions and alterations, the circuits which feed them, the protective measures and the earthing and bonding systems to meet the requirements.

Establishing that the mains supply equipment is suitable.

WINDOWS AND EXTERNAL DOORS

Windows are to provide minimum opening lights equal to 1/20 (5%) of the floor area of the room served, and provide minimum background ventilation via controlled trickle ventilators to achieve 4000sq mm in the kitchen, bathroom, cloakroom and utility room windows and 8000sq mm to all other habitable rooms.

The windows are to be glazed with 24mm (4:16:4) sealed double glazed (Low-E: emissivity of 0.15) units with a minimum U-Value of 1.8W / m² K or centre pane value of 1.2W / m² K or energy rating Band D. Doors 50% glass U-Value 2.2W / m² K or centre pane U-Value 1.2W / m² K.

All glass shall be in accordance with BS 6206: 1978. Obscure glazing is to be provided to all bathrooms and cloakrooms. All windows and doors are to be weather stripped.

Safety glazing in accordance with BS 6206: 1981 shall be fitted in the following critical locations:

- (1) All glazed doors.
- (2) All full height sidelights.
- (3) Any window within 300mm from a door opening up to a height of 1500mm.
- (4) Any window between finished floor level and 800mm above that level.

Note: All windows provided for emergency egress should have an openable area of at least 0.33m² and have an unobstructed dimension of at least 450mm x 450mm. The bottom of the openable area should not be more than 1100mm above finished floor level.

LINTELS

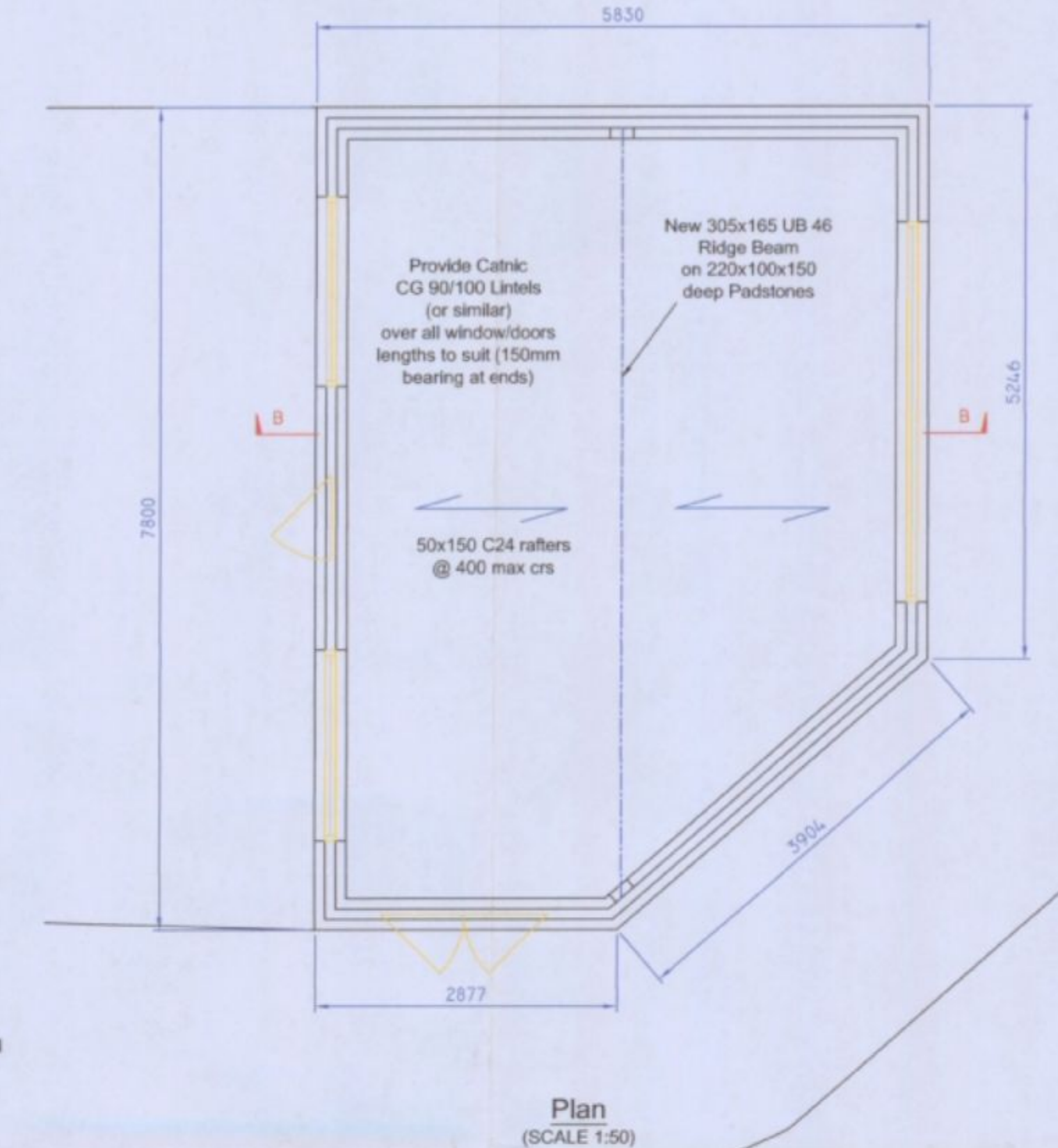
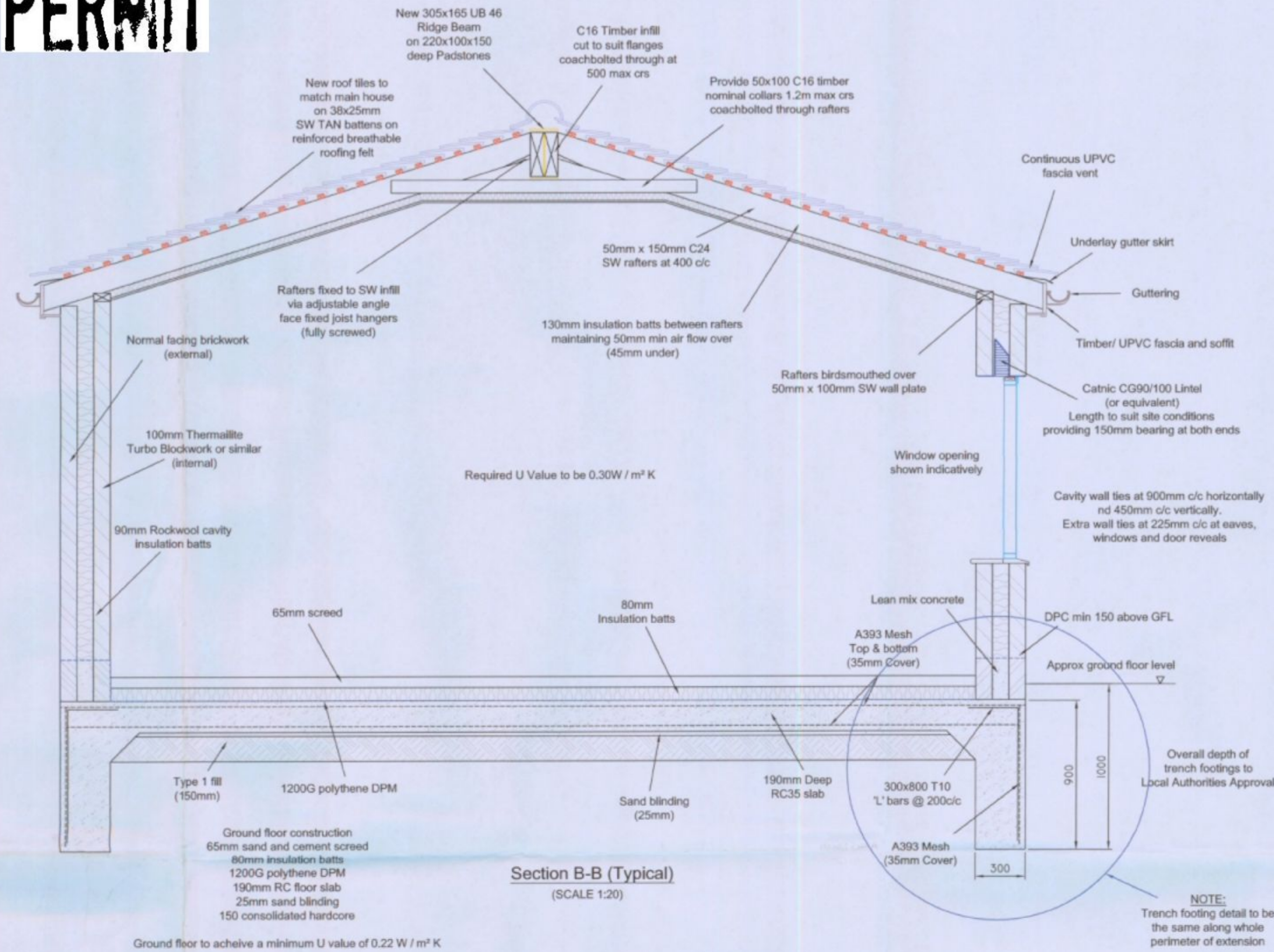
All lintel arrangements to Structural Engineers details where noted.

All lintels to be securely built into masonry walls and be of the appropriate length to ensure a minimum 150mm bearing at each end - alternatively to manufacturers / Structural Engineers specifications.

EXTERNAL CAVITY WALL INSULATION

90mm thick full fill Rockwool cavity wall batts, or similar, cavity wall insulation to provide a minimum U-Value of 0.30 W / m² K. Fix batts securely with tightly butted joints, ensuring that all edges are not damaged and that top edges are covered with a temporary timber batten to ensure that they remain free from mortar droppings and other debris. The cavity wall insulation is to be installed in strict accordance with manufacturers recommendations commencing below the DPC to avoid cold bridging. The cavity insulation is to commence at the same level as the horizontal ground floor insulation.

PERMIT



Notes:

The Contractor is responsible for checking all dimensions on site prior to commencement of the works with any errors being reported to Adept Design Solutions Ltd as soon as possible.

Any construction work carried out prior to receiving all necessary approvals for planning and/or building regulations is entirely at the householders / clients risk.

All building work to be completed to the satisfaction of the Local Authority Building Control Officer and in accordance with the current Building Regulations and as such additional unforeseen building works may be required on site.

The Contractor shall inspect all adjoining properties which may be affected by the works prior to commencement of works and record and report to the owners any defects.

The Contractor shall be entirely responsible for the security, strength and stability of the building during their course of the works being carried out.

Drawings produced for the purpose of obtaining Building Regulations approvals only and do not constitute full working drawings.

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APP/10/0472

MOVEMENT JOINTS

Generally to be provided at not greater than 12 metre centres for brickwork and 6 metre centres for blockwork. Movement joints to be 16mm min wide, located behind rainwater downpipes where possible and formed proprietary polyurethane sealing strip, with flat ties between panels at 450mm vertical centres with one end de-bonded with poly-sulphide sealant to external face of brickwork/render - colour to match. Note: provide cavity wall ties within 150mm horizontally, at 225mm maximum vertical centres, either side of movement joints.

INTERNAL FIRE DOORS

Fire doors to be 30 minute fire resistant complete with intumescent strips and 25mm stops and a Perco style self closing device.

STEEL BEAMS

New steelwork as shown on the plans to Structural Engineers details and calculations. All steelwork to be lined with 2 layers of 12.5mm fireline plasterboard with all joints staggered, sealed and taped. Where it is not possible to encase steelwork with plasterboard they should be coated with intumescent paint to achieve 30 minutes fire resistance.

INTERNAL WALLS - NON LOAD BEARING STUDWORK

75mm x 50mm softwood framing comprising sole and head plates, uprights at 400mm centres and nogginns staggered at mid-height. Walls to be lined each side with 12.5mm plasterboard, taped, skimmed and set finished. Plasterboard to be plaster skimmed ready for decoration

For studwork partitions to bedrooms and rooms containing WC's studwork to be lined with 15mm thick wall board plasterboard (minimum mass 10kg/m²) and void to include a layer of 25mm insulation quilt. All gaps to be well sealed.

RAINWATER GOODS

100mm wide PVCu semi-circular section gutters laid to falls to discharge into 65mm diameter rainwater downpipes. New soakaways to be provided (2m³ capacity) minimum 5000mm from any structure. Rainwater drain runs to be 100mm diameter PVCu in shingle surround.

SMOKE ALARMS

Smoke alarms are to be installed in circulation areas on each storey of the dwelling, as positioned on drawing (large circulation areas may require two units). Smoke alarm unit to BS 5446: Pt. 1: 1990 & is to be fitted a minimum of 300mm from light fittings and walls. Alarms must be connected to a separately fused mains electricity supply with a transformer (if required) and where more than one unit is fitted within a dwelling, they must be interconnected. The installation must comply with the current IEE regulations.

LOW PITCHED ROOF CONSTRUCTION

175mm x 50mm softwood rafters at 400mm centres brldsmouthed over and spikenailed to 100mm x 50mm softwood wallplate bedded to top of internal cavity skin wall and held down with 30mm x 5mm mild steel straps at 1200mm centres (1200mm long) bent at right angles to give a minimum of 75mm fixing to the top of the wall plate.

Lateral and vertical restraint straps are to be provided to roof members in accordance with BS 5628 from the roof to adjacent parallel walls at a maximum of 2000mm centres using 30mm x 5mm galvanised steel straps turned down 150mm minimum over blockwork and fixed over solid blocking, to a minimum of three rafters.

Roof covering to comprise of matching plain clay tiles, and ridge tiles to be fixed in accordance with manufacturers instructions and to BS 5534 on 38mm x 25mm preservative treated softwood battens on reinforced roofing felt underlay type 1F to BS 747 Pt. 2.

The roof is to be cross-vented by proprietary eaves ventilator equivalent to a 25mm continuous air gap within eaves. To ensure a clear airflow from eaves vents through into roof space, proprietary ventilation trays are to be fixed between rafters.

Fascia to be 25mm thick PAR softwood to match existing complete with a 12.5mm thick exterior quality plywood soffit fixed to fascia and to wall with softwood battens. Clipped verge detail at gables.

Whole roof area to be insulated via 100mm Celotex double foil backed insulation batts cut to suit between rafters with tightly butted joints, ensuring that all edges are not damaged, ensure minimum 50mm air gap between topside of batt and underside of reinforced roofing felt.

Ceiling to be 12.5mm foil backed plasterboard with joints filled and taped to take textured finish. Provide 50mm x 38mm nogginns to provide support at joints, edges and light fittings.

Roof to achieve a U-Value of at least 0.16W / m² K.

VENTILATION

All habitable rooms to have rapid ventilation via windows/doors of an openable area at least 1/20th of the floor area, part of the ventilation opening must be at least 1.7m above finished floor level.

Windows:

Windows are to provide 4000 sq mm minimum of background ventilation via controlled trickle ventilators in kitchen, bathroom, cloakroom and utility room window or door and 8000 sq mm to all habitable rooms. Alternatively, the sum of all trickle vent areas in the house must equal or exceed 6000mm² x those rooms specified in Table 1 of Approved Document F1.

Kitchens:

All kitchens (including kitchen/dining rooms) shall be mechanically ventilated by an extracting cooker hood, extracting to external air at a rate of 30 litres per second, operated intermittently.

Utility Rooms:

All utility rooms to be mechanically ventilated either by a wall-mounted (or ceiling mounted) fan, to extract 30 litres per second and controlled by light switch. In rooms without openable windows 15 minutes overrun to be provided. Isolator switch at high level external to room. Any ducting in floor zone not to exceed 6m or less if manufacturer so recommends, terminating in an approved vent to match wall.

Bathrooms and En-Suite Bathrooms:

All bathrooms and en-suites to incorporate a recessed mechanical extract fan (extracting at a rate of 15 litres per second) located in the ceiling or wall, which will be operated intermittently linked to room lighting. Switching to be by means of light switch with isolator switch external to room. External terminal in gable (when possible) with plastic airbrick to matching facing brickwork. Rooms without windows to additionally have 15 minutes overrun.

EFFICIENCY LIGHT FITTINGS

Provide lighting fittings as per layout below to be fixed lighting that only accepts lamps having a luminous efficacy greater than 40 lumens per circuit watt. Such fitting would include fluorescent tubes and compact fluorescent lamps but not GLS tungsten lamps with bayonet cap or Edison screw bases.

Minimum of one energy efficient light fitting per 25m² of floor area or 1 energy efficient light fitting per 4 light fittings, whichever is greater. Halls, stairs and landings count as one room but may contain more than 1 light fitting. Efficiency light fittings cannot be located in garages, lofts and outhouses. The exact location of efficiency light fittings to be determined on site.

PLUMBING INSTALLATION

Complete installation to be subject to and capable of withstanding testing in accordance with BS 5572: 1978. Above ground foul drainage pipe work shall be PVCu to BS 4514.

Pipe work must be designed in accordance with BS 5572 and installed to ensure that appliances drain efficiently without causing crossflow, backfall, leakage or blockage. No air from the drainage system shall enter the building. Provide adequate support to lengths of pipework and at junctions and changes in direction. No branch connection to be within 450mm above foot of soil pipe. All PVCu pipework to be to BS 4514. Minimum pipe sizes for sanitary plumbing to be:

WC's, soil pipes	100mm dia nom. size
Common pipe wastes	50mm dia nom. size
Bath, sink	50mm dia nom. size
Handbasin	32mm dia nom. size
Shower	40mm dia nom. size
Overflow	19mm dia nom. size

All fittings to have 75mm deep seal traps. Provide waste for washing machine and dishwashers where applicable. All waste pipes shall be laid to falls (25mm per metre run). All plumbing shall be installed in accordance with manufacturer's instructions.

The maximum lengths of waste pipes shall be as follows:

32mm pipe	1.7m maximum length
40mm pipe	3.0m maximum length
50mm pipe	4.0m maximum length
100mm pipe	6.0m maximum length

Soil and ventilating stacks at 'head' of drain run to be ventilated to the external air via rigid ducting within roof space to terminate via tile or ridge tile ventilator (minimum 900mm above any window head within 3m horizontally).

Soil pipes passing through habitable rooms (including kitchens) to be lagged with minimum 50mm sound deadening quilt and with 2No. layers of 12.5mm plasterboard in 38 x 38mm softwood framing. Access and rodding eye fittings to be provided to ensure all pipework is accessible as required. Pipework laid between joists to be adequately supported. Underground pipes with less than 750mm ground cover shall be insulated. All rising mains to be insulated.

UNDERGROUND DRAINAGE - ACCESS POINTS

Access points in the form of rodding eyes, access fittings, inspection chambers or manholes to be provided at the following points:

- (a) On or near the head of each drain run
- (b) At a bend and at a change of gradient
- (c) At a change of pipe size
- (d) At a junction unless each run can be cleared from an access point

450mm diameter plastic inspection chamber on a 100mm thick concrete base and surrounded with 150mm of pea shingle for invert levels of 1000mm or less.

Manhole and/or inspection chambers should have removable non-ventilating covers to be either cast iron or pressed steel and be of suitable strength. Covers inside buildings shall be mechanically fixed and airtight.

SPACE HEATING

Existing central heating system to be extended into new rooms in accordance with BS5449. All new radiators to be fitted with thermostatic valves.

New/replacement boilers to be condensing boiler with a minimum SEDBUK rating of 86% with appropriate controls with steel panel radiators, fitted with thermostatic radiator valves, via copper distribution pipework. Primary pipework must be copper but flexible pipework may be used for heating distribution, where concealed, but only with prior written approval of the heating designer and the Client.

The proprietary flue is to be taken directly to the outside air, installed strictly in accordance with the manufacturer's instructions. Flue is to be provided with a protective cowl. All gas installations to comply with the British Gas Authority recommendations and the acceptance of the relevant Local Gas Authority. Position of flue outlets to comply with Part J of the Building Regulations 2002 and is dependant on the type of appliance and appliance rating.

Domestic hot water distribution pipes to be insulated with wrap max 0.045 W/ m² K, where pipes are not exposed. All water pipes in roof spaces, all cold water service pipes and all central heating pipe work, not contributing useful (designed) heat, to be insulated to BS 5422: 1990.

HAVANT BOROUGH COUNCIL
DEVELOPMENT CONTROL
15 SEP 2010
RECEIVED

GENERAL NOTES

1. All dimensions in mm unless noted otherwise.
2. This drawing is confidential and is the exclusive property of those named in the title block. No unauthorised use, copy or disclosure is to be made and it is to be returned upon request.
3. This drawing is to be read in conjunction with all relevant architects drawings and engineers specifications.
4. Steelwork positions shown individually and must be determined on site by specialist fabrication.
5. All temporary works including propping is solely the responsibility of the main contractor.

DO NOT SCALE

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Job No.	NC10033
Site >	63 STAKES ROAD, PURBROOK.
Contract >	PROPOSED DOUBLE GARAGE ALTERATIONS
Client >	MR E. LOCK
Scale > See Drawing	Date > 12 July 2010
Drawn > D J Ruttle	DRG No. NC10033-001

PAPER SIZE = A1