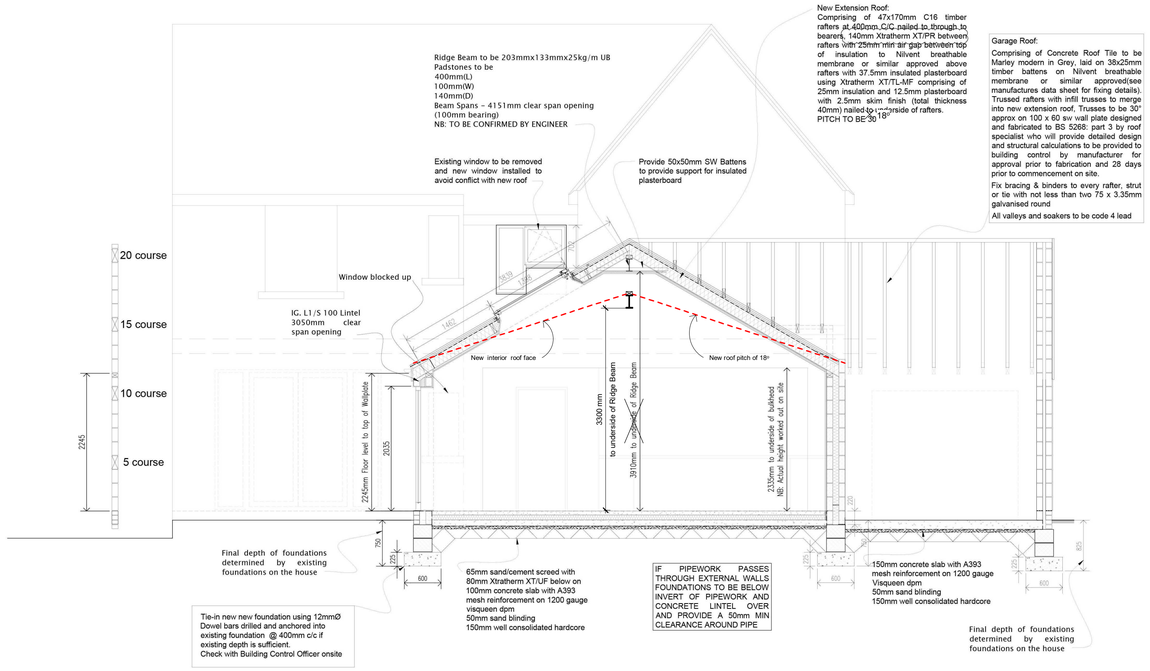
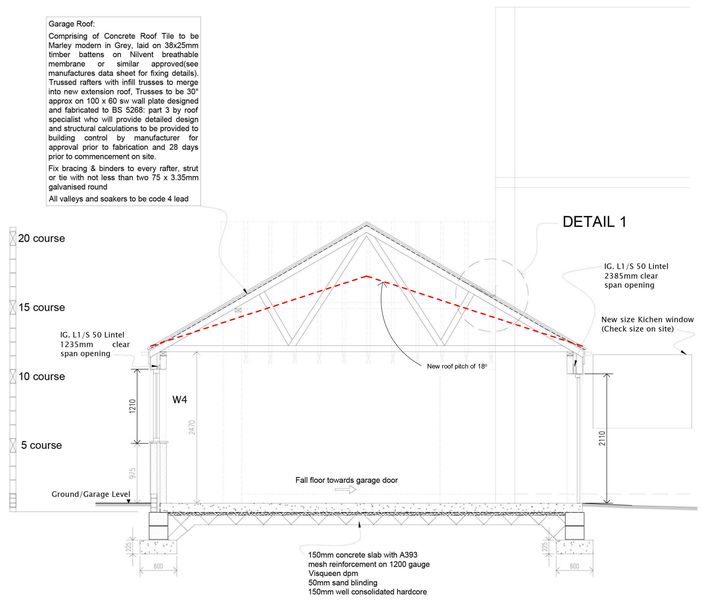
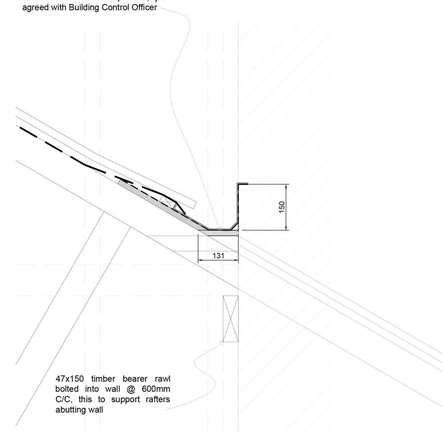


SECTION A-A
Scale 1:50



DETAIL 1

SECTION B-B
Scale 1:50



WALL ABUTMENT - DETAIL 1
Scale 1:50

NOTES:

FOUNDATION CONSTRUCTION: (A2)

Concrete strip foundations below all load-bearing walls to be 600 x 225mm to external cavity 20 N/mm², 220kg/ m³ cement content of foundations. Where pipework passes through external walls foundations to be below invert of pipework and concrete lintel over and provide a 50mm min clearance around pipe. Use concrete foundation blocks from strip footings to 150mm below ground level.

FLOOR CONSTRUCTION: (A3)

Rear extension:

Comprising of 65mm sand/cement screed with 80mm Xtratherm XT/UF below on 100mm concrete slab with A393 mesh reinforcement on 1200 gauge Visqueen dpm on 50mm sand blinding with 150mm well consolidated hardcore

Required U-value 0.22 W/m²K

this construction should achieve 0.19 W/m²K

WALLS: (A)

EXTERNAL WALL CONSTRUCTION (A3)

New walls to be a total wall thickness excluding plasterwork and render to be 300mm wall construction comprising outer surface to contain 11 to 13mm approx of Parextherm Mineral Render System (colour to be agreed) on 100mm outer leaf of Thermalite 7.3N or (suitable for render) with 100mm Dritherm (0.35W/mK) cavity insulation with 100mm inner leaf being Celcon standard concrete blockwork or similar having a compressive strength of 3.6N/mm² laid stretcher bond with 10mm joints and laid in 1:4-5 gauged mortar. Concrete common or clay bricks to be used to make up levels.

Total cavity wall construction including plaster and render 338mm

Required U-value **0.28 W/m²K**

this construction should achieve **0.27 W/m²K**

INTERNAL FINISHES:

Innerleaf of blockwork to have 12.5mm plasterboard and 2.5mm plaster skim on dot & dabs giving a total thickness of 22 to 25mm finish to blockwork wall.

WALL TIES: (A)

Wall ties to be Ancon ST1 Wall Ties 225mm long designed for 75-100mm cavities. Ties fixed at 750mm centres horizontally and 450mm centres vertically and 225mm at all reveals. Ties sloped slightly downwards towards outer leaf .

INTERNAL STUD WALLS: (A4)

Option 1 - Timber Studs (Shown on Plan)

75 x 50 C16 studs fixed @ 600 centres with noggins at 600mm centres. Full fill Knauf Earthwool insulation cut to fit tightly without gaps between studs. 1 layer of 12.5mm British Gypsum Plasterboard to each side of studs with 2.5mm Thistle plaster finish both sides, to BS1191;Part 2.

Option 2 - Knauf metal studs

Comprising of 50mm "C" channels with 12.5mm plasterboard either side and skim, giving a total width of 88mm with full fill Knauf Earth wool insulation fitted between channels.

LINTELS: (A5)

Lintels to be IG and fitted as per manufacturers recommendations with minimum end bearing of 100mm for openings up to 1000mm wide and 150mm for all other openings. Flexible DPCs to be installed over lintels in accordance with BS5268. Stop ends to be formed 25mm beyond reveal cavity closers.

NB: If alternative lintels are used then confirmation of suitability by Lintel manufacturers to submitted Building Control prior to installation.

ROOF CONSTRUCTION: (A6)

New Extension Roof: 30°

Concrete Interlocking tiles such as Marley Modern (SUITABLE FOR ROOF PITCHES OF 30°) colour to be grey laid on 50x25mm counter battens with 50x25mm horizontal battens to gauges specified by concrete roof tile manufacturers, nailed to rafters with nilvent breathable roofing membrane or similar approved.(see manufactures data sheet for fixing details). Timber rafters 47x170mm C16 at 400c/c (Needs to Be confirmed by Engineer), on 100x60mm sw timber wall plate.

NB: Double up rafters either side of Velux rooflights.

All valleys and soakers to be code 4 lead

New Attached Garage Roof 30°:

Concrete Interlocking tiles as above (Marley Modern), laid on 38x25mm timber battens on Nilvent breathable membrane or similar approved(see manufactures data sheet for fixing details), on 100 x 60mm sw wall plate designed and fabricated to BS 5268: part 3 by roof specialist who will provide detailed design and structural calculations to be provided to building control by manufacturer for approval prior to fabrication and 28 days prior to commencement on site; use diminishing trusses back to new extension roof. Fix bracing & binders to every rafter, strut or tie with not less than two 75 x 3.35mm galvanised round wire nails

Ridge tiles to be half round ridge tiles in matching existing roof colour and to be mortar bedded. All valleys and soakers to be code 4 lead.

Roof Abutment:

Where Garage roof meets existing rear elevation gable adopt either the detail provided or agree alternative detail with Building Control.

Options are MBP, Dryseal, or GRP profile.

Insulation used in roof to be:

(140mm Xtratherm XT/PR between) rafters with 25mm min air gap between top of insulation to Nilvent breathable membrane or similar approved above rafters with 37.5mm insulated plasterboard using Xtratherm XT/TL-MF comprising of 25mm insulation and 12.5mm plasterboard with 2.5mm skim finish (total thickness 40mm) nailed to underside of rafters

Required U-value **0.18 W/m²K**

this construction should achieve **0.15 W/m²k**

All fascias to Upvc in white and match existing. Gutters and downpipes to be black plastic to match existing (check on site).

RESTRAINT STRAPS: (A1)

30x5mm galvanised m.s. twist straps at eaves level anchored to wall and rafter.

Where rafters run parallel gable wall fix 30x5mm galvanised m.s. straps taken horizontally over 3No. rafters at 2m centres with 50x75mm timber noggins under straps.

SMOKE DETECTION (B1)

Smoke detectors to comply with BS5546 mains operated smoke alarms interlinked and with battery back up system to be supplied with detectors fitted to ceiling on each landing and within 7.5m of every habitable room. 300mm min away from walls and light fittings.

STRUCTURAL ELEMENTS:

See Beam schedules for beam and padstone sizes.

DPC: (C1)

Provide 100-300mm Polythene dpc Type D min 150 above ground level Cavity tray d.p.c. to be provided at all interruptions to the cavity (e.g. Cavity tray to project min. 150 mm beyond the inner face of the cavity closure, provide drip protection to window and door heads, have an overall min. upstand of 140 mm)

Insulated cavity closer to window to be Thermabate or similar for 75-100mm wide cavities, installed in accordance with the manufacturer's recommendations.

LEAD WORK: (C3)

Flashing's to be Code 4 lead

VENTILATION: (F)

ROOF:

Roof ventilation to be achieved by using breathable roofing membrane.

KITCHEN:

To have mechanical extract ventilation of at least 30 litres/sec (above Hob) or 60 litres/sec elsewhere and discharges to the outside.

W.C.:

To have mechanical extract ventilation of at least 15 litres/sec and discharges to the outside

HOT WATER SUPPLY AND SYSTEMS: (G3)

Ensure that the temperature supplied to the domestic hot water distribution system does not exceed 60°C, by using In-line hot water tempering valves.

GLAZING: (N)

Glazing less than 800mm of internal floors or within doors is to be safety glass and kite marked. Safety glazing to BS 6202.1981: between finish f.l. and 1500mm above that level in all doors and side panels within 300mm of either edge of the door, and between ffl and 800mm above that level in all walls and partitions. All doors and opening windows to be double-glazed and weather-stripped

WINDOWS: (L4)

New windows to be UPVc colour (White & Grey) matching existing with Pilkington K Glass double-glazed 20mm air gap filled with Argon gas and float glass outer. (See Window Schedule for sizes and colour)

This should achieve maximum U-value **1.4 W/m²K**

Required U-value to Achieve is **1.6 W/m² K**

DOORS (L4)

New Double french doors with full height glazed side windows and Aluminium 4 panel Bi-fold doors in grey fully glazed with Pilkington K Glass double-glazed 20mm air gap filled with Argon gas and float glass outer. (See Door Schedule for door sizes)

This should achieve maximum U-value **1.4 W/m² K**

Required U-value to Achieve is **1.6 W/m² K**

All external window frames, service penetrations to walls, floors and ceilings etc, should be sealed both internally and externally with proprietary sealing products such as proprietary waterproof mastic, expanding foam or mineral wool or tape to ensure air tightness.

ROOFLIGHTS:

1 No. Velux PK08 GU in Grey (1340x1398mm) with standard 59 pane. To be fitted in accordance with manufacturers installation procedures Required U-value to Achieve is **1.6W/m² K**.

These Velux will achieve **1.4 W/m² K**.

DRAINAGE: (H)

Surface Water:

- Due to existing RWP's being located on neighbouring property, then investigation on site to determine if existing drains are combined and agreement with Building Control to connect into them. Alternatively the surface water is to go into a soakaway, formed in the rear garden using soakaway creates, subject to a percolation test for suitability of ground condition.
- Discharge via 110mm black uPVC gutters with 65mm RWP's (matching existing) choice of shape to be confirmed and can either square or round.

Foul Water:

- Use existing Soil & Vent Pipe to be relocated onto the gable end as show on the floor plans.
- Existing Bathroom W.C. to be reconfigured to connect into new location. Any additional Foul Water drainage to be connected into existing foul water sever or combined sever once investigations have been carried and agreed with Building Control.
- If new pipework is required, it is to be 100mmØ vitrified clay drains by "Hepworth Supersleve" or equal and approved to be laid to 1:80 gradient to inspection chambers.

If new inspection chamber is required then use the New Hepworth Mini Polypropylene Inspection Chamber 300x600mm,

100mmØ to be used for drainage from new kitchen.

NB: the inspection chamber is only for light foot traffic use.

ELECTRICAL: (P)

- Part P registered electrician to be used
- Install the following circuits (where applicable) in accordance with BS 7671 using BASEC new coloured certified cables: ground floor lighting, first floor lighting, external lighting, ground floor power, first floor power, smoke detectors, provision for 2 extra circuits. Protect all cables in plaster using galvanised steel channel. Consumer Unit to BS 5486. Number of ways, one per circuit plus two spare. Each circuit protected with miniature circuit breaker to BS EN 60898.
- Main control to be RCCB to BS 4293. Enclosure to be surface mounted plastic unit with lid.
- All sockets and switches must be positioned between 450mm and 1200mm above floor level.
- A minimum of 30% of lights per dwelling must be provided with energy efficient lighting i.e. units can only take lamps having a luminous efficacy greater than 40 lumens per circuit-watt
- Smoke alarms to be self-contained type to BS 5446: Part 1, Kitemark certified; mains Operated, interconnected with DC battery back up. Inspect and test to BS 7671 (IEE Wiring Regulations Part 7) and provide client with two copies of inspection and completion certificates.
- Low voltage recessed lights fittings MK or equivalent
- Electrical accessories MK or equivalent

HEATING & PLUMBING: (J1)

- Gas Safe registered installer on all plumbing/heating works
- New boiler installed to accommodate existing and additional heating demand by plumbing contractor
- Heating to distributed via radiators taken from existing pipework network.
- Radiator valves (TRVs) on all radiators
- Layout to be agreed by clients
- Provide hot and cold water supplies to Sink. All service pipelines to be blue polyethylene to BS 6572, Kitemark certified with compression fittings to BS 864: Part 5. Copper pipeline to be copper tube to BS 2871: Part 1, Kitemark certified. Joint fittings to BS 864: Part 2, Kitemark certified. Capillary fittings to be lead free. Flush out and test system upon completion with water.

GENERAL NOTES:

Seal all SP and waste pipe penetrations passing through external walls and ceilings.

MATERIALS AND WORKMANSHIP:

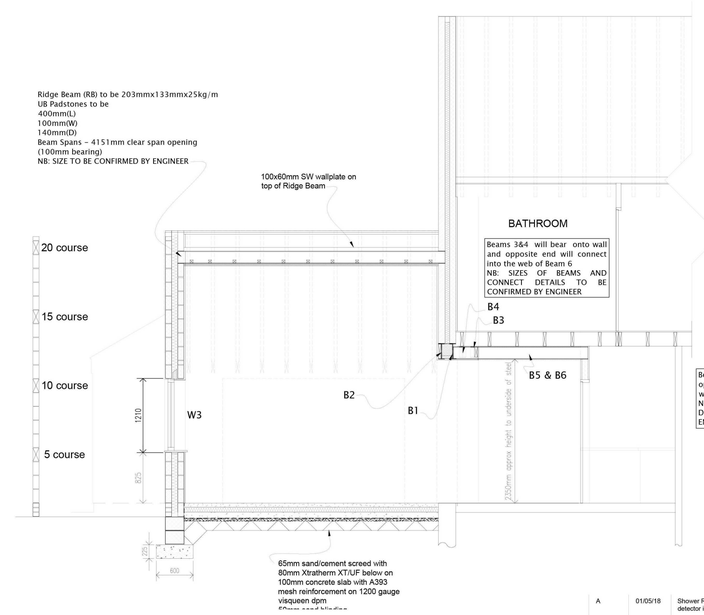
All materials must comply with the following:

- British Standards or European Standards
- Product Certification Schemes (Kitemarks)
- Quality Assurance Schemes
- British Board of Agreement Certificates (BBA)
- Construction Product Directives (CE Marks)
- Local Authority National Type Approvals (System Approval Certification)

All materials must be fixed in strict accordance with manufacturers printed details and workmanship must be in strict accordance with BS 8000: Workmanship on Building Sites: Parts: 1 to 16.

Where materials, products and workmanship are not fully specified or described, they are to be:

- Suitable for the purpose stated or inferred
- In accordance with recognised good practice



SECTION C-C
Scale 1:50

Structural Elements

BEAM	SIZE	CLEAR SPAN	PADSTONE SIZE
B1	254mmx102mmx28kg/m UB	5301mm	To be confirmed by Engineer
B2	254mmx102mmx28kg/m UB	5301mm	To be confirmed by Engineer
B3	178mmx102mmx19kg/m UB	1633mm (wall to web)	To be confirmed by Engineer
B4	178mmx102mmx19kg/m UB	1633mm (wall to web)	To be confirmed by Engineer
B5	203mmx102mmx23kg/m UB	2058mm (wall to web)	To be confirmed by Engineer
B6	203mmx102mmx23kg/m UB	2058mm (wall to web)	To be confirmed by Engineer
RIDGE BEAM (RB)	203mmx133mmx25kg/m UB	4151mm	To be confirmed by Engineer

STRUCTURAL BEAM SCHEDULE

Rev:	Date:	Description:	By:
A	01/05/18	Shower Room extractor fan added and smoke detector in Hallway added, U-values amended	SH

07762656187
steven@drawit.biz
www.drawit.biz
15 Medway Close
Barugh Green
Barnsley
S75 1NY

Draw it

Purpose: BUILDING REGULATIONS

Status: PROPOSED
Dwg of: Sections, Detail, Notes & Structural Beam Schedule

Client: Mr & Mrs Wareing

Site Address: Field House, Cote Lane, Thurgoland
Sheffield, S35 7AE

Project: Proposed single storey rear extension with attached garage creating new Kitchen Dining & Snug Area

Drawn by:	Date:	Rev:
SH	13/04/2018	
Scale: As Shown	Dwg No: 1727_203	A

Important notice: Do not scale off this drawing. Critical dimensions should be checked on site prior to works commencing. Dimensional conflicts should be brought to Draw it's attention as soon as they become apparent. Failure to do so could render the contractor liable for subsequent losses. Copyright in this drawing and any work executed from this drawing remains the property of Draw it.

© Copyright Draw it 2018