



# section A-A

# scale 1/50

FOUNDATIONS

Foundations to be minimum 700 x 200 mm concrete strip foundations to external walls and 400 x 200 mm to internal walls at min. 750 mm bearing level. Foundation type dlustrated is assumed and subject to ground conditions and LABC approval. Seek SE design should ground conditions dictate.

# GROUND FLOOR CONSTRUCTION

Ground bearing floor construction comprising: dient selected floor finish on 75 mm thick sand/ cement screed with added fibres for reinforcement. Screed contractor to design screed to resist cracking, with all necessary expansion gaps encasing undefloor heating pipes on 1000 gauge polythene separating membrane on 120 mm thick misulation board on 150 mm thick plain concrete slab on 12000 pCM, on 25 mm thick clean sand blinding on min 150 mm well compacted sulphate free sub base backfilling to foundations in max. 150 Jayers 20 mm thick insulation upstand to be turned up at perimeter of screed. all joints in insulation are to be aluminium tape seeled and otherwase installed in struct accordance with the manufacturer's latest instructions, floor construction achieves 0.13 U value? with P/A ratio of 0.34.

DPM turned up at perimeter and lapped with DPC at finished floor level

GARAGE FLOOR CONSTRUCTION

Ground bearing floor construction comprising: epoxy floor paint, 150mm thick plain concrete slab on 1200g DPM, on 120mm thick insulation board, on 1200g DPM, on 25mm thick clean sand blinding on min 150mm well compacted sulphate free sub base, back filling to foundations in max. 150 layers. Floor construction achieves 0.13 U-value# with P/A ratio of 0.34. Note finished floor level to be 100mm lower than FFL to house.

# EXTERNAL WALL CONSTRUCTION

350 mm wide cavity construction comprising 100 mm wide dense concrete blockwork outer skin 7 3N/ mmsq strength. 150 mm wide lear cavity and 100 mm wide lightwoight 0.19 Lambda block inner skin 7N/ mmsq strength. Cavities to be partially filled using 100 mm thick insulation board, to achieve 0.022W/m K lambda value, installed in accordance with manufacturer's instructions. Wall achieves 0.17 U value? Blockwork biosted block works of 12 V value? Blockwork hinshed internally with 12.5 mm plasterboard and skim finish. Blockwork hinshed weternally with through colour 'scraped' texture render, such as Stirling White K Render. Red sandtstore / artstone to baav windows and all window calls.

Red sandstone? artistone to bay windows and all window cills. Red sandstone? artistone to bay windows and all window cills. Cavites closed at jarnobs and cills of all openings with with Thernabate cavity closer to suit cavity width. Cavity closed at eaves and verges using non combustible building board. 100 x75 mm treated SW wall plate to be strapped to top of internal block skin using 30 x 5 x 1000 galv, ms. straps at max 8 m of t

1.8 m cts 18 m cts. Hearts of openings to be supported by 100 x 140 mm pre-stressed concrete lintels, or 100 x 215 mm for openings 900 -1800 mm, (unless stated otherwise) with nin. 150 mm end bearing, cavity tray over (except openings directly under eaves) with weephicles at max 900 mm cts. nin. 2 no, per opening Stanless street cavity will ties of length appropriate to cavity width to provide 75 mm embedment to be installed between blockwork skins at 900 mm horizontal staggered cts, 450 mm vertical cts and 225 mm vertical cts within 225 mm of jambs of all memory.

of all openings. Movement joints to manufacturer's recommendations.

Hyload OPC installed at FPL over internal and external skim

Substructure as superstructure with weak mix concrete infill to cavity at level of finished ground level with splay away from inner skin.

#### PARTITIONS

veight partitions to be 75 x 50 mm wide timber studs at 600 mm cts. finished with 12.5 mm plasterboard and skim 50 mm thick Isover APR 1200 sound deadening quilt to be installed between studs.

Solid partitions formed using 100 mm wide dense concrete blockwork constructed off foundations 12.5 mm plasterboard and skim finish dry line to both sides. Hyload DPC to be installed at ground FFL.

SUSPENDED FLOOR CONSTRUCTION (inc. roof over garage)

Client selected floor finish on min. 18 mm thick PS particle board sheathing with glued t&g edges screw fixed to 38 x 220 mm C16 (to comply with Eurocode 5 span table) timber floor joists at 400 mm cts. Soffit to be finished using 2 no. Jayers of 12.5 mm thick plasterboard (to achieve 60mms fire resistance) and skim finish. 100 mm thick losver APR 1200 sound deadening quilt to be installed between all joists. Where joists run parallel with external wall then the first 3 no. joists to be strapped to inner skin using 30 x 5 mm galv. m.s. straps at max 1800 cts. Timber noggins beneath straps between joists, end of strap turned down cavity. Strutting to be installed at mid span of joists with spans between 2.5 4.5 m. Where partitions run parallel with joists then double joists to be installed underneath. Floor joists to be supported on galvanised joist hangers fixed to wall plates. Fixings to structural engineer's design. Beards over advance to engineer's design.

Beams over garage to engineer's design.

PITCHED ROOF CONSTRUCTION (inc. roof over garage)

Russell Lothian concrete interlocking tiles in Anthracite with 100 mm headlap fixed in accordance with manufacturers instruction to 50 x 25 mm treated SW battens at gauge to suit size of tile and pitch of roof on Klober Permo Forte open roofing membrane on rafters

New rafters to be 47 x 195 mm C16 class (to comply with EurocodeS span table) at 400 mm cts.

Rafters to be birdsmouthed over principle roof structure and wall plates all to design by Structural Engineer Klober membrane installed in strict accordance with manufacturer's latest instructions with min-150 mm laps between Notes in An organ emanded in some accordance men minimized is actest instruction with this 150 mm aps between Sheets and draped by 8 mm over rafters. Roof to be insulated at rafter line using 150mm thick insulation board friction fitted between rafters with 60 mm insulation

board to soffit Raking ceilings to be finished using 12.5 mm thick plasterboard and skim finish fixed through insulation via 25 x 50 mm SW

battens into rafters with VCL beth Roof construction achieves 0.14 U Value#

Eaves formed using 32 mm thick PAR treated SW fascia boards fixed to ends of ralters with continuous treated SW tilt fillet

Eaves formed using 32 mm thick PAR treated SW fascia boards fixed to ends of rafters with continuous treated SW till fillet fixed behind and with 12 mm thick treated SW fascia offit fixed to underside of rafters. Klober Eaves Carrier fitted to top of tilt fillet and Klober roofing underlay cut and lapped over (not exposed beyond fascia). Verges formed using flying rafter and gable ladder detail (to devign by SE) with 32 mm thick PAR treated SW bargeboard fixed to fixe of flying rafter and 12 mm thick fasg soft fixed to underside of rafters bargeboard by SE 50 mm, roofing underlay turned up behind bargeboard and built beneath tile with sealant pointing or proprietary closer. Ridges to be montar bedded and pointed. Valleys formed using lead sheet on underlay on 18 mm thick W8P plywood fixed to top of rafters. Lead to be dressed beneath tile line over treated SW till fillet and lapped beneath roofing membrane with single welt finish.

Proposed location for gas and electric meters.

Rooflights to be Velux FK06 or MK08 rooflight. Appropriate flashing for roof covering installed in strict accordance with manufacturer's instruction. Double rafters installers either side and above and below to trim out the opening.

#### ABOVE GROUND DRAINAGE

UPVC pipework to 85 5255 1976 installed in accordance with BS 5572 1978 Code of practice for Sanitary pipework. All sanitary (including sinks) to be fitted with 75 mm anti- syphonage deep seal traps. Wash hand basins connected to soil stacks via 32 mm dia. wastes Sinks. showers and baths connected to soil stacks via 38 mm dia. wastes. Wastes over 2.0 m long to be 50 mm dia.

wastes over 2.0 milliong to be 50 millional. Bends in branch pipes to have a min, centre line radius of 75 mm. Junctions in branch pipes to be made with a sweep of 25 mm or angle of 45 deg. Access to branch pipes to be provided at start of runs and at all changes of direction

barection. WC wastes to be 110 mm dia connected to SVP or soil stacks with air admittance valve (see plans). Soil stacks to terminate with air admittance valve at level above highest floor plane. SVP to open air min. 900 mm above first floor windows with faird proof dome. Rainwater goods to comprise half round elliptical gutters and 68 mm dia round downpipes all to be grey.

anthracite uPVC discharging to gullies.

### BELOW GROUND DRAINAGE

Foul water and storm water drainage to discharge to via 110 mm diameter uPVC pipes laid at max 1.40 and min. 1.80 falls with PPIC's installed at each connection (foul only) and each change of direction (foul and storm) and access to provided at start of runs (storm only). Foul connected to existing mains drainage system Storm water to discharge into 1.0 m x 1.0 deep large stone filled seakways at min. 5.0 m from any building and with approval of LABC

#### VENTILATION

Sathroom / ensuite - Openable window and mechanical extract of 15 Usec rate, when no window then operated light switch and 15 minute overun. Gather

WC - Mechanical extract of 6L/ sec rate, fan connected to light switch with 15 min overrun facility.

Kitchen - Openable window and mechanical extract of 60 L/sec rate (or 30 L/sec if cooker hood).

Utility - Mechanical extract of 30 L/sec rate.

Rapid ventilation provided to all habitable rooms with clear ventilation area of min. 1/20th of room floor area. All windows to include trickle vents providing background ventilation of 8.000 mm sq per room. Shower room and wetroom to be mechanically ventilated with background air change / purge (boost) facility to provide ventilation rates stated in main notes

All glazing within 800 mm of finished floor level or finished ground level, within 300 mm of door jambs or within doors to be in safety glass to the relevant current British Standard. Any glass acting as guarding to be designed by the glazing supplier / manufacturer to resist the force given in BS EN 1991-1-1/PD 6688-1-1 for domestic

All windows and doors are to be grey anthraote uPVC triple glazed units with low. E soft coating to inner pane

All windows and doors are to be grey anthracte uPVC triple glazed units with low. E soft coating to inner pane and argon gas filled cavity to provide whole U-value of min. 1.4. Principal entrance doors are to be min. 775 mm Clear width and to include accessible low level threshold. Level approach with max. 1.20 gradient and bound surface. Principal entrance door to be secure doorset manufactured to a design that has been shown by test to meet the security requirements of British Standards publication. PAS 24 2012. Any letter plates should be maximum 20 mm x.400 mm and be designed to stop anyone attempting to remove keys in anyway or insert their hand by use of a restrictive device. All external windows are to be manufactured to a design to meet the security requirements of BS PAS 24.2012. Location of network access point to be in entrance hall. Terminal chamber and Access point (cometed via vervice provider's duct) to be installed. Internal network termination point to be provided. All internal doors serving habitable rooms to be minimum chear width of 750 mm (when approached head on), otherwise 757 mm.

otherwise 775 mm. All electrical socket outlets and switches to be positioned between 450 mm, and 1200 mm above finished floor

smoke and heat detectors to be ceiling mounted at each level within 7.5 m of doors to habitable rooms and

min. 300 mm away from any light fitting, wall or door swing. Detectors to be interlinked within the dwelling,

mains powered with battery back- up. Primary space heating and DHW via Air Source Heat Pump or Mains Gas fired system boiler and pressurized

mains powered with battery back-up. Primary space heating and DHW via Air Source Heat Pump or Mains Gas fired system boiler and pressurized cylinder with min.88% SEDBUK rating via underfloor heating at ground floor texcluding under kitchen island) and walt mounted radiators at first floor. Tower radiators to bathrooms shower rooms and ensure. Boiler to be fitted with interlocks and flow controls to prevent boiler cycling, all radiators to bathrooms shower rooms and ensure. Boiler to be fitted with interlocks and flow controls to prevent boiler cycling, all radiators to be fitted with RV's Baths where indicated are to have their hot water supply to tap (not at Storge) limited to 48 degC via an in-line TMV or bath mixer tap fitted with integral TMV. If in line TMV then it is to be in a position not readily accessible for adjustment but capable of access for periodic sterilization of pipe between value and tap. Lighting throughout building to be dedicated energy efficient light fittings capable of accepting lamps having a luminous efficacy greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens. This includes fluorescent lubes and compact fluorescent lumps (not GLS tungsten lamps with bayenet cap or Edison serve bases etc). Number of fittings as stipplated in SAP Water serving appliances are to be designed to limit the total water consumption to a max of 125 L/person/day. Water serving appliances are to be estigned to comply with the water efficiency calculation, this is a separate document to this drawing. An as built water efficiency calculation will need to be prepared and submitted to Building Control at completion. Its missues be no more than the max consumption standard. Commissioning of hot and cold water system to be carried out to a Building Control approved standard and to be submitted to Building Control within 5 days of commissioning for approval. All electrical work to be carried out by a GAS SAFEr registered plumber / heating engineer. All electrica

#### Elecsa Limited British Standards Institution

NICEIC Services Limited All certificates to be forwarded to Building Control upon request

