

**ROOF**

All roof timbers to be double vacuum impregnated to BS5707.

- Roof construction to consist of:
  - Roof tiles fixed in accordance with manufacturer's instructions, on:
  - Tapered tilting battens (size to suit tile & rafter spacing) with a min head of 75mm, on:
  - 12mm breathable sarking membrane, on:
  - Roof timbers as specified.

Roof trusses to be contractor designed in accordance with BS 5268:pt.3:1985. All timber to be vacuum pressure impregnated.  
Calculation for roof trusses to be submitted to Local Authority 14 days before roofing works commence on site.

Roof insulation to be as follows:

Pitched roof with insulation at ceiling joist level (U-Value 0.14) to consist of 150mm fibreglass insulation (BS 5250) between joists with a further 150mm fibreglass laid across giving a total 300mm thickness of insulation. Insulation joints to be taped. Ensure 50mm clear air space is achieved between insulation and underside of roof at eaves. Include gable/valley RVD01 rather than vents between all rafters.

Form roof valleys on 19mm thick exterior quality plywood including tilt fillets, down edges & tiles cut edges. Gap between the edges to be 22mm wide using code 1 head work.  
All lead work to be in accordance with the Lead Sheet Association Guide lines.

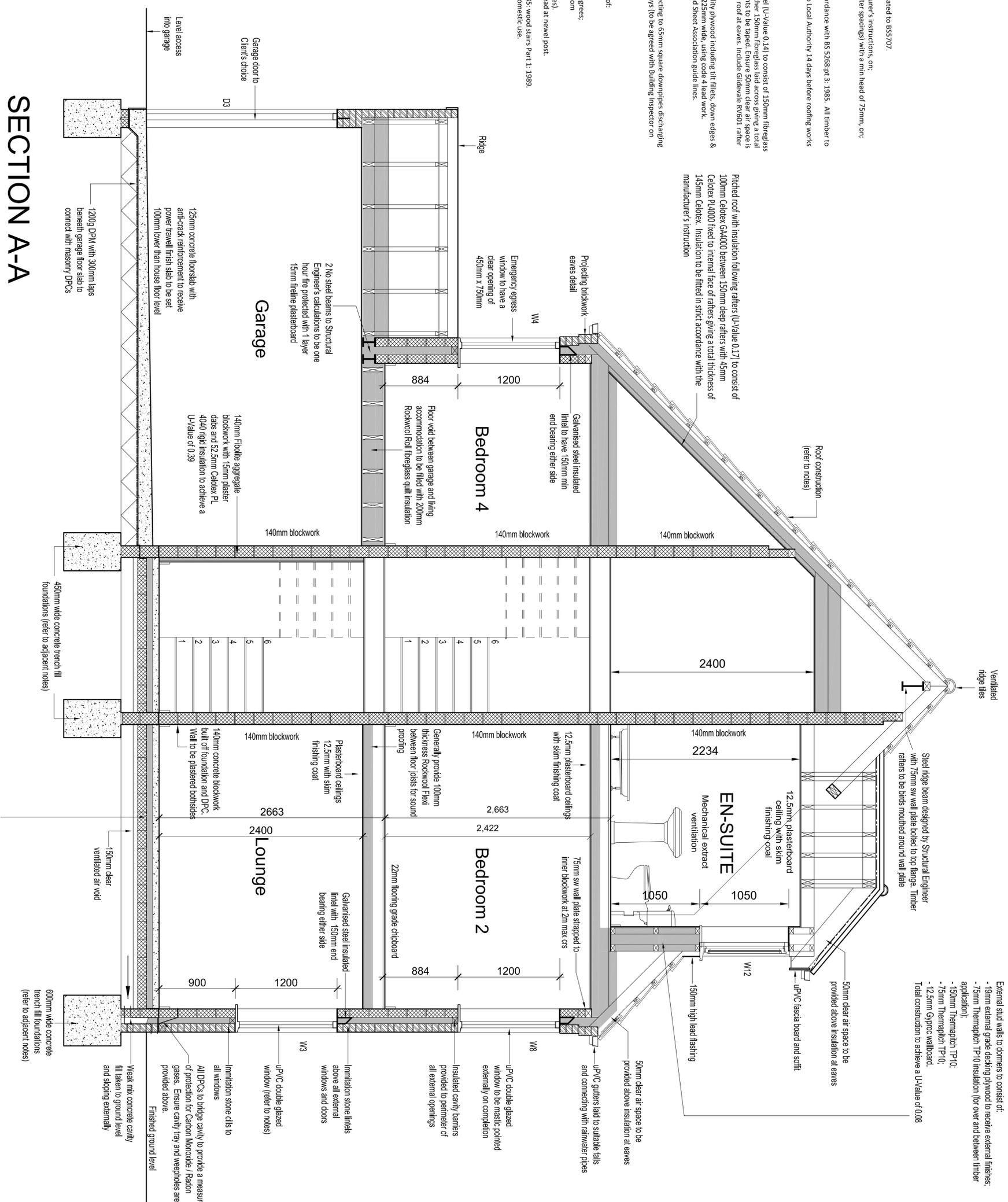
**GUTTERS AND RAIN WATER PIPES**

100mm half round guttering to falls and connecting to 65mm square downpipes discharging into below ground drainage system / soakaways (to be agreed with Building Inspector on site).

**STAIRCASE SPECIFICATION**

- Staircase material to Clients choice consisting of:
  - Risers not to exceed 220mm;
  - Goggles no less than 220mm;
  - Angle / pitch of staircase not to exceed 42 degrees;
  - Staircases to have 2000mm mm clear headroom measured vertically.
  - Guarding (refer to separate specification notes).
  - Windower staircases to have 50mm minimum tread at newel post.
  - Timber staircases to be manufactured to BS585: wood stairs Part 1: 1989. Specification for stairs with closed risers for domestic use.

**SECTION A-A**



**EXTERNAL WALLS (U-Value 0.25)**

- External cavity walls to dormers to consist of:
  - 103mm facing brickwork laid stretcher bond (1:3 sand/cement mortar) with bucket handle pointing finish.
  - 15mm Therapitch TP10 insulation (for over and between timber application);
  - 100mm cavity filled with 100mm Crown Dritherm Cavity Slab 32 insulation batts.
  - 100mm Fibrolite blockwork inner leaf, 3.5N/mm sq compressive strength.
  - All internal blockwork to receive 12.5mm Gyproc wallboard.
  - 150mm Therapitch TP10;
  - 75mm Therapitch TP10;
  - 12.5mm Gyproc wallboard.
- Total construction to achieve a U-Value of 0.108

**EXTERNAL WALLS (U-Value 0.25)**

- Cavity to be filled with weak mix concrete (sloping externally) between foundation & ground level. Top of cavity fill to be taken 225mm below the lowest DPC level.
- Stainless steel double triangle wall ties (BS 1243:1978) to be provided at distances not exceeding 750mm horizontal & 450mm vertical centres, all ties to be staggered. Wall ties to be provided at every course at window & door reveals.
- Therapitch (TPVC or similar) insulated cavity closers (with proprietary fixing ties) & DPC's to be provided at all external openings (head, sill & jamba) to prevent condensation forming on cold bridge.

**LIMITS**

- Cavity wall insulation must be taken below DPC finishing at the same level as the underside of the floor slab insulation (limiting air leakage).
- Cavity wall insulation & roof insulation must meet at the top of the wall, cavity wall insulation must be carried to the full extent of gable walls (limiting air leakage).
- All steelwork beams to be encased with 2 layers 12.5mm plasterboard (staggered joints) with plaster skim finish to give 30 mins fire protection. Fire protection to be mechanically fixed to steelwork (ie: British Gypsum Gypliner steel encasement system - or similar)
- Internal openings to have "stressliner" pre-stressed concrete lintels with 150mm min end bearing either side to suit thickness of blockwork.

**INTERNAL PARTITIONS**

- Blockwork walls built off horizontal DPC's laid in grade 3 mortar. Ensure all joints are fully mortar filled and flush pointed (unless otherwise stated).
- All walls to be finished with Caritex plaster system, render & finish unless stated otherwise. Walls and floors formerly treated as semi-exposed (i.e.: between a house and an un-heated garage) must meet the full U-Value required for external walls & floors. Semi-exposed walls to be insulated with 50mm thickness Celotex TuffR GA3050 rigid insulation fixed in strict accordance with manufacturer's recommendations.
- First floor walls to be built in timber studwork built off doubled up floor joists. Wall to include sole plate, head plate, noggins, studs etc.
- 38 x 63mm studs to be fixed at 400mm c/s and clad with 12.5mm Gyproc wall board either side to receive plaster skim coat.
- Foil backed plasterboard to be used in wet areas (i.e.: bathrooms, kitchens etc.)

- Bedroom stud walls to achieve a minimum airborne sound insulation value of 40dB.
- Construction to consist of British Gypsum 12.5mm SoundBloc wallboard either side of 38x63mm timber studs at 600mm c/s with 25mm Sound Acoustic partition roll (120) in the cavity. Alternatively, 12.5mm plasterboard either side of 50x50mm timber studs at 600mm c/s with cavity filled with 47mm Rockwool Acoustic slab. Both constructions achieve a fire resistance of 30mins.

**FOUNDATIONS**  
Carry out any demolitions required, excavate to reduced levels. Excavate & pour concrete trench fill foundations.  
Trench fill foundations to be C20 mix concrete, depth of trench to be a minimum of 1000mm (under / over / between existing drains) & approved by Building Inspector. Foundations required to all be by block foundations. General excavation width = 600mm  
Generally external (300mm / 140mm), foundation width = 450mm  
Clayboard to be provided to foundations where trees in close proximity have been removed.

**FLOOR SLAB (U-Value 0.17)**  
Builder to check with Client if underfloor heating is required. If so, then the following floor build up specifications may be required to change to suit specialist requirements.  
Ground floor slab to consist of:  
- 75mm cement / sand screed 1:4 mix with 1 layer A192 anti-crack mesh placed centrally, on;  
- 120g DPM with 300mm laps and taped, on;  
- 100mm kingspan thermalfloor, T170 Zero ODP flooring grade insulation turned up at perimeter of floor slab (including at doors where floor slab usually touches external brickwork), on;  
- concrete beam & block floor designed and detailed by specialist sub-contractor. All beam ends to be built off internal blockwork DPC. Include telescopic void vents with UPVC air brick grilles at 2.5 - 3.0m c/s.  
- 150mm min clear air space below beam & block floor to weed killed ground.

**ARCHITECTURAL BUILDING DESIGN SERVICES**

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PROJECT: PROPOSED SITE REDEVELOPMENT  
DRAWING TITLE: PLOT 1 & 2 - SECTION A-A  
PROJECT ADDRESS:

DATE:	SCALE:	FORMAT:
09.10.12	1:25	A1
DRAWN: CF		REVISION:
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APPROVED:		

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