

- [R1] 150 x 50mm C.16 rafters @ 400mm c/c.
- [CJ1] 150 x 50mm C.16 ceiling joists [bathroom only] @ 400mm c/c.
- [B1] 203 x 133 x UB25 bearing on [P1] 3No 100 x 50mm studs spiked together and braced within studwork.
OR
152 x 89 x UB16 bearing on [P1] 3No 100 x 50mm studs spiked together and braced within studwork
AND with positive bearing on loadbearing bedroom/kitchen partition.
- [B2] 152 x 89 x UB16 bearing on eng. brick padstones.
- [B3] 152 x 89 x UB16 bearing on eng. brick padstones.
- [B4] 152 x 89 x UB16 bearing on 2No 100 x 50mm studs spiked together and braced within studwork wall
AND connected to [B6] with 2No M16 bolts through 10mm thick angle plates welded to beams AND
bearing on inner leaf of gable cavity wall supported by [B8].
- [B5] 152 x 89 x UB16 bearing on eng. brick padstones.
- [B6] Cranked 152 x 152 x UC23 bearing and welded to 225 x 100 x 12mm thick m.s. plate AND [B7]
- [B7] 152 x 89 x UB16 bearing on eng. brick padstones.
- [B8] 'Catnic' CH lintel or similar.
- [WP1] Construct cavity wall as per separate structural calculations sheets page 17.
- [FN1] Construct foundation as per separate structural calculations sheets pages 18 & 19.

BEAMS TO BE INSTALLED AS PER SEPARATE STRUCTURAL CALCULATION SHEETS WITH ALL DETAILS AND BEAM SIZES DOUBLE CHECKED.

INSTALLATION OF BEAMS TO BE INSPECTED BY BUILDING CONTROL OFFICER.

BEAMS TO BE INSTALLED TO HEALTH AND SAFETY STANDARDS.

PHYSICAL ON SITE MEASUREMENTS TO BE TAKEN PRIOR TO ORDERING OR FABRICATION OF BEAMS.

INSTALLATION OF BEAMS PRIOR TO FULL LOCAL AUTHORITY APPROVAL [NOT CONDITIONAL]
CARRIED OUT AT CLIENTS/BUILDERS RISK.

ANY CHANGES TO STRUCTURAL DESIGN ARE CARRIED OUT AT CLIENTS/BUILDERS RISK. AND WILL
REQUIRE SUBMISSION TO COUNCIL FOR APPROVAL AND MAY CAUSE DELAYS TO BUILDING WORK.

SPECIFICATION:-

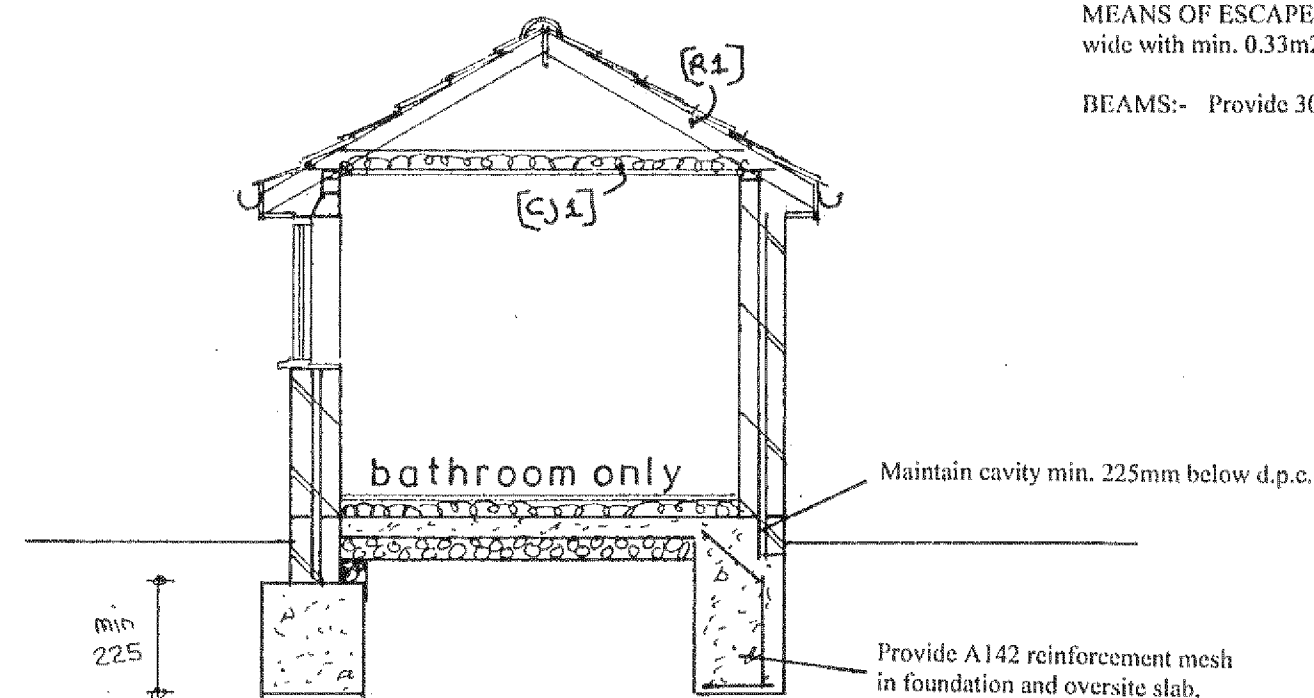
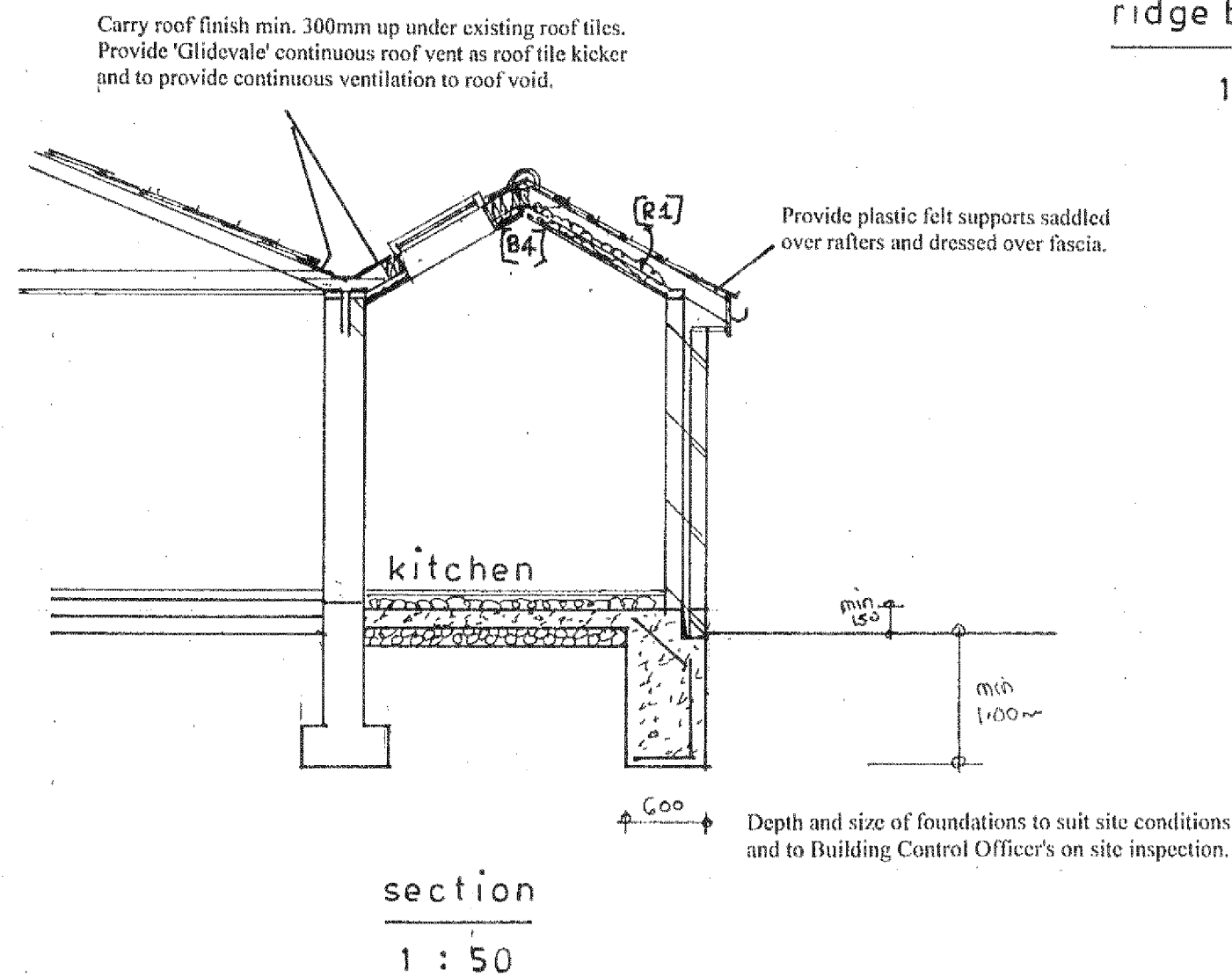
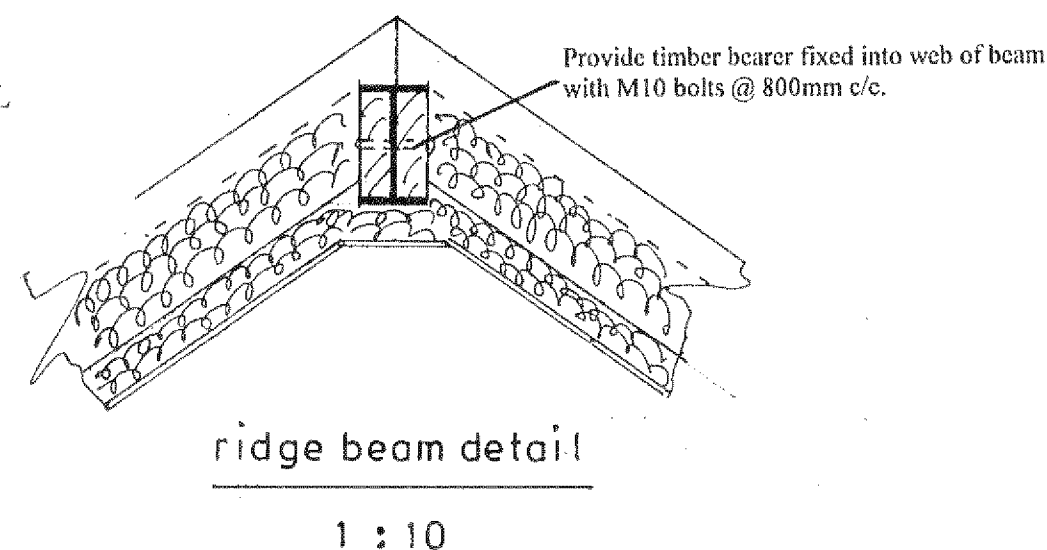
KITCHEN/DINING/BEDROOM VAULTED ROOF:- Concrete interlocking tiles to match existing on 50 x 25mm sawn treated battens on 'Tyvec' OR similar breather felt to BS747 on 150 x 50mm C.16 rafters @ 400mm c/c. with designed ridge beam. Install 2No 616 x 616mm rooflights [Manufactured by The Rooflight Company Tel: 01993 833108] with manufacturer's tile flashing and 2No rafters spiked together to rooflight cheeks. All roof tiling to be carried out to BS5534:2014. with all tiles mechanically fixed to battens, damp proof membrane over ridge plus a dry-fix ridge installation.

Provide GA3100 'Celotex' insulation laid between rafters to sloping areas with min. 50mm air gap between insulation and roofing felt and TB3045mm 'Celotex' [0.18W/m2K] fixed continuously to underside of battens and 12.5mm plbd. and set coat over. Provide additional layer of 6mm Masterboard between plbd. and rafter to boundary sloping roof as fire protection.

Note: Positioning of rooflights can be varied within rafter length to centralise between valley weathering and designed ridge beam.

BATHROOM ROOF ONLY:- Concrete interlocking tiles to match existing on 50 x 25mm sawn treated battens on 'Tyvec' OR similar breather felt to BS747 on 150 x 50mm C.16 rafters @ 400mm c/c. with 200 x 25mm ridge board. Provide lateral bracing at gable with 32 x 6mm m.s. straps @ 1800mm c/c. built into blwk. and spanning min. 3No rafters and ceiling joists with solid strutting below straps. All roof tiling to be carried out to BS5534:2014 with all tiles mechanically fixed to battens, damp proof membrane over ridge and hips plus a dry-fix ridge installation.

300mm fibreglass with 100mm laid between ceiling joists and 200mm laid over 150 x 50 C.16 ceiling joists @ 400mm c/c.



VALLEY:- GRP fibreglass laid in situ on 11mm OSB boarding on timber bearers @ 400mm c/c. and laid to form 1:60 fall. Carry fibreglass min. 300mm up under new and existing roof tiles with 'Glidevale' continuous ventilation strip to give continuous ventilation to new and existing roof voids.

WALLS:- Below G.L. cavity construction of 'Thermalite' standard blwk. OR Class A dense conc. blwk. Lean mix concrete cavity fill to min. 225mm below d.p.c. Above G.L. outer skin of facing brickwork to match existing, 100mm cavity filled with 'Dritherm 37' fibreglass cavity wall batts [0.28W/m2K] and inner skin of 100mm 3.6MN/m2 'Thermalite' Turbo blwk. [WP1] dry-lined with 12.5mm plbd. and set coat. New cavities to run continuously. Stainless steel wall ties @ 750mm horiz., 450mm vertical and 225mm c/c. at reveals, at abutments to existing timber framed wall and both sides of expansion joints. 'Catnic' lintels OR similar over openings with upvc insulated cavity closers at reveals. Provide cavity tay and bed 100mm horiz. d.p.c. min. 150mm above G.L. Bed 100 x 50mm wall plate tied to blwk. with 32 x 6mm galv. m.s. straps @ 1800mm c/c. Provide pre-cast concrete lintels over drains where pass through brickwork. Provide expansion joint as detailed on plan.

UPPER VAULTED WALLS:- 100 x 50mm studwork @ 400mm c/c. with GA3075mm 'Celotex' pushed to outer edge of studs leaving 25mm air gap then overboard with 12mm 'Celotex T break [0.28W/m2K] and 12.5mm plbd. and set coat.

FLOOR:- 70mm screed OR 22mm t & g water resistant chipboard with fully glued joints on GA3080 'Celotex' [0.22W/m2K] on 3 coats of 'Cementone' water based d.p.m. on 225mm thick cantilevered concrete [C35] oversite slab with two layers of A392 reinforcement mesh on well compacted hardcore OR rejects. Provide positive link between d.p.m. and new and existing d.p.c.'s. ADJUST HEIGHT OF OVERSITE SLAB TO ENSURE THAT FLOOR LEVELS RUN CONTINUOUS WITH EXISTING SOLID FLOOR INCLUDING FLOOR FINISH.

FOUL DRAINAGE:- Provide 38 & 32mm dia. p.v.c waste with 75mm deep seal anti-vac traps and rodding eyes to new back inlet gully and 100mm stub stacks fitted with air admittance valves. All plumbing to BS5572. Gully and stub stacks connected to 100mm dia. 'Osma' underground drainage pipe laid to 1:40 falls with 100mm bed and surround of 10mm peashingle with 'Osma' plastic inspection chambers and connected to inspection chamber.

STORMWATER DRAINAGE:- 100mm dia h.r. pvc gutters to 65mm downpipes discharging into water butt at front with overflow connection to 100mm dia. 'Osma' underground pipe laid to 1:40 falls with 100mm bed and surround of 10mm peashingle AND to designed 2.00 x 2.00 x 1.20 metre deep [below invert] soakaway min. 5.00 metres away from building. Provide silt trap inspection chamber in marked position on plan.

VENTILATION:- Provide min. 1/20th floor area ventilation to all habitable rooms. Provide background ventilation with 5000 sq.mm trickle vents to all habitable rooms and 2500 sq.mm to all other rooms fitted into heads of window and door frames. Provide additional ventilation in kitchen with cooker hood to give min. 30 litres/sec extraction and ducted to outside air. Provide additional ventilation in new bathroom with mechanical extractor with min. 20 litres/sec extraction, 20 minute overrun and ducted to outside air.

GLAZING:- Provide double glazed argon gas filled sealed units in upvc window and door frames. Provide toughened glass in all external doors and in all positions less than 800mm above FFL. Provide 'Kappafloat' glass to all windows and doors to give 1.60 U-value. All Glazing to BS6206.

HEATING:- Extend domestic supplies and fully pumped central heating system with thermostatic radiator valves in accordance with the Domestic Heating Compliance Guide 2010.

ELECTRICAL:- Provide 75% Energy efficient light fittings to both new and replacements with min. 45 lumens per circuit watt. All electrical work to be installed, inspected and tested by NEC Registered Electrician including provision of BS7671 electrical installation certificate. Provide heat detector in kitchen fitted into smoke detector circuit.

SMOKE DETECTORS:- Provide mains operated smoke detector fitted into single electrical independent circuit max. 7.50 metres from lounge and 3.00 metres from bedrooms. Detectors to be installed min. 300mm from walls and light fittings.

MEANS OF ESCAPE:- Existing lounge and three bedrooms windows to be provided with one opening casement min. 450mm wide with min. 0.33m2 clear opening area and be located between 800 and 1100mm above F.F.L.

BEAMS:- Provide 30 minutes fire protection to exposed beams with layer of 12.5mm fireline plbd. and set coat.

sheet 3 c of 3

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PROPOSED SINGLE STOREY EXTENSION AT 8, ROSVARA AVE., WESTERGATE
FOR MR. & MRS. D. SIBUN.