This drawing is for the sole purpose of obtaining Local Authority Building Regulation approval only. The building contractor shall be responsible for the checking of all dimesnions on site. The building contractor shall be responsible for the stability of the new \$\psi\$ existing structures during the works.

New foundations to be 700×200 mass concrete strip footings tied into existing. All taken off LA approved bearing strata. Foundation to have 450mm min ground cover. Exact depth of foundation to be established on site.

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New walls to be 325mm cavity construction \$\psi\$ shall comprise:
Below dpc - 100mm thk celcon thermolite blockwork inner leaf, 100mm thk dense concrete blockwork outer leaf with lean mix cavity fill. Fill shall not be within 225mm of the dpc. Allow for hy-load dpc bedded in cement mortar. Dpc shall be 150mm min above external ground level.

Above dpc - Walls to achieve 0.18W/M2-K U-value. 100mm thk celcon thermalite blockwork inner leaf, 75mm thk kingspan K108 wall insulation, 40mm cavity and 100mm thk solid concrete blockwork.

Insulation to extend to lower level of floor insulation. Cavity to extend 225mm min below level of dpc.

Allow for 250mm long vertical twist type 55 wall ties at 450mm vertical \$750mm horizontal crs staggered. Allow for wall ties to every course around openings. Insulation to be secured with wall tie clips. Minimum returns to be 385mm. Provide expamet reinforcement between bed joints at returns. Ensure cavity face of inner leaf is clean \$ free from mortar prior to fixing of insulation. Ensure cavity is kept clean at all times.

Form new openings as indicated. Exact sizes shall be determined prior to works commencing \$ adjusted accordingly. Sill heights to window openings to be 800mm min above f.f.l.

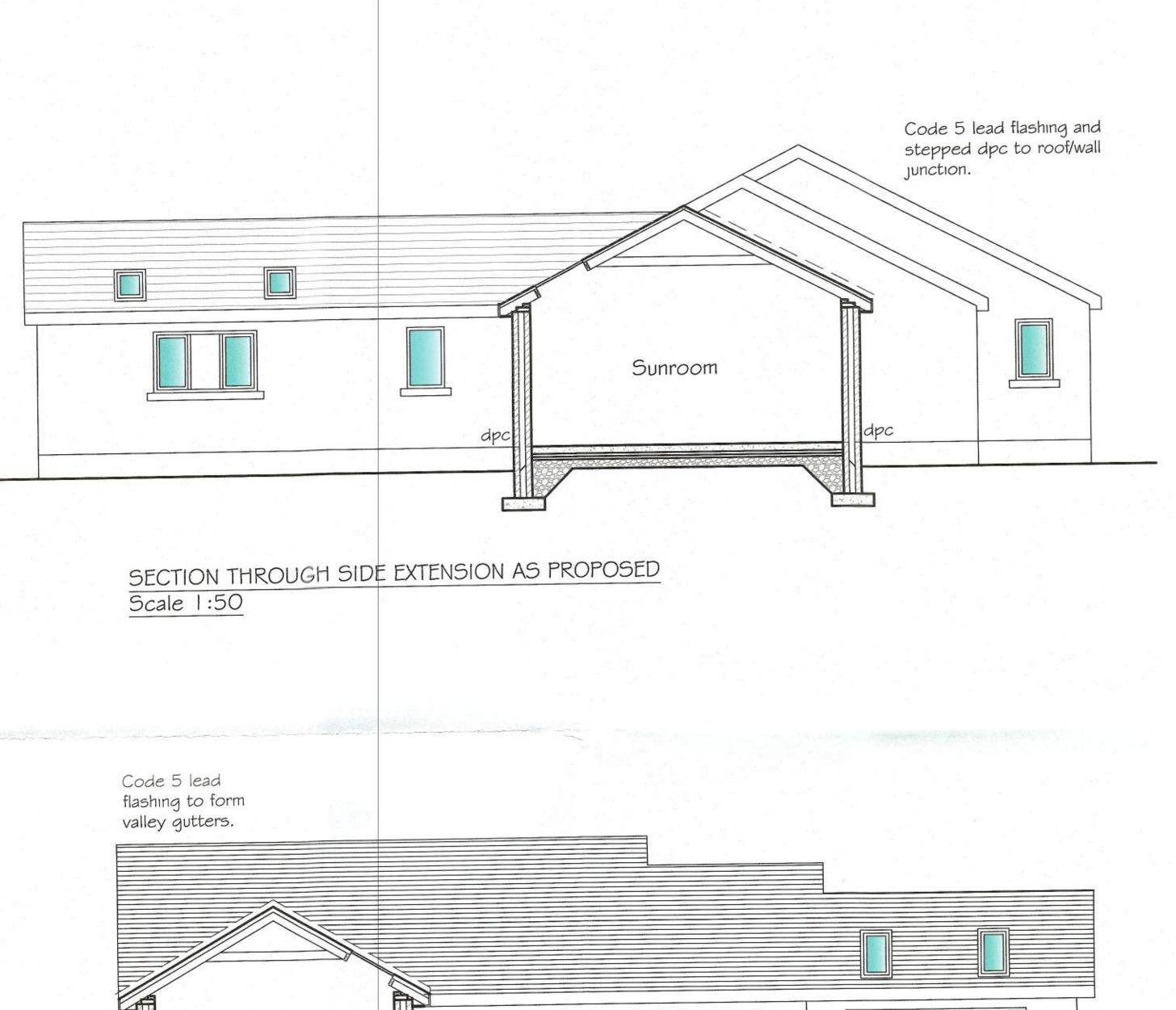
Allow for PC concrete thresholds to door openings. Allow for insulated steel lintols to openings, Catnic cougar or similar. Type chosen to accommodate wall thickness \$ loading conditions. Allow for dpc over all steel lintols with stop ends at each end.

Close cavity around all openings with thermalite or similar insulated cavity closer with combined dpc. Allow for all required vertical \$ horizontal dpc treatment to openings. Cavities to be closed at eaves with a suitable calcium silicate board. Roof \$ wall insulation should abut the cavity barrier at eaves level to prevent cold bridging.

New roofs to be concrete tiles to match existing on 50x25mm sw timber battens on sarking felt (felt to be carried into gutters \$ secured using clout nails) on pre-formed roof trusses at 400mm crs to BS5268 Pt3 \$ shall include all diagonal bracing and trimming details. Design calculations \$ drawings to be submitted to LA for approval 2 I days prior to installation. All secured to 100x50mm sw timber wall plate. Wall plate secured to top of wall using at 1200mm max crs. using m/s BAT M305 straps. Ensure 25mm continuous air gap with vermin proof screen at eaves \$ continuous 5mm ridge vent. Allow for 100mm thk celotex XR4000 or similar insulation between trusses. Ensure 50mm air gap is provided.

New floors to be 100mm the concrete with a steel float finish on 100mm celotex XR4000 or similar insulation on 1200g visqueen dpm, on sand blinding, on 1500mm well compacted type 1. Overall floor to provide U-value of 0.20W/m2K. Provide strip of insulation between floor \$\psi\$ wall.

New steelwork to be grade S275 JR. Steelwork to have 1500mm min end bearing onto gr35N/mm2 concrete padstones at each end. Steelwork to be tied together using M10 threaded bars at 500mm crs. Steelwork to have fire board surround to provide 60mm fire protection.



SECTION THROUGH REAR EXTENSION AS PROPOSED Scale 1:50

Bedroom

dpc

Window opening lights to have opening areas equal to 1/20th of the floor area it serves. Trickle vents to be provided to each room, min vent area 8000mm2. Windows to provide U-value of 1.6W/m2K and to be double glazed with a 16mm air gap \$\psi\$ a soft low E coating. Windows \$\psi\$ door frames to be sealed into masonry openings with mastic. Kitchen/dining area to have mechanical ventilation with a capacity of 60lt/sec. All windows to be fully draught stripped. Glazing below 800mm to be safety glass to BS6206: 1981, also to include glazing in doors below 1.5m. All doors to have threshold to comply to DDA requirements.

Heating and hot water to be provided by existing gas fired combi boiler - if heating Engineer deems the boiler is not fit for purpose, then a new boiler will be required \$ located in the kitchen / utility room with a balanced flue in the external wall, a min. 600mm from any opening. a room sealed type boiler with a min. sedbuck rating of 91% to be used. protective wire cage externally. heating and hot water system to be provided with zone controls, timing controls, boiler interlocks and installed to manufacturers instructions/specifications. all heating pipes and ducting to be insulated. all heating products and appliances to be in strict accordance with approved document JI \$ J3 of the building regulations. All hot water storage systems and appliances to be in strict accordance with approved document g3 of the building regulations. temperature to separate areas to be thermostatically controlled (trv's or similar) flue terminal to be positioned in accordance with BS 5440 pt | flue to be guarded if within 2000mm of the ground. All to be fitted in accordance with domestic heating compliance guide.

All electrical work is to be designed ,installed, inspected and tested in accordance with BS 7671:2001 or equivalent standards, theses installation works are to be undertaken by a person registered with an electrical self certification scheme, or alternatively by a suitably qualified person, with a certificate of compliance produced by that person to building control on completion of the works.

Exact layout of all sockets \$ switches to be determined by client.

DH -Heat detector

DS -Smoke detector

All detectors interlinked and wired to separate fuse at the mains distribution board all to BS 5446 pt l