



Roof construction -
Redland Cambrian slates with integrated solar panels as roof plan on 38 x 30mm sw treated battens on 38 x 30mm sw tanalised counterbattens all stamped and graded. Tiles nailed & fixed to suite local exposure rating on Kingspan Nilvent or sim approved breathable sarking membrane (Can be placed under or over counterbattens & draped to provide drainage) system laid over rafters with horizontal laps of 100mm min & vertical laps of 150mm min. sealed with 75mm wide double sided acrylic adhesive tape. Provide felt eaves strip approved eaves carrier at eaves detail. In accordance with manufacturers recommendations. Roof tiles to BS 473 & 550, profile to be suitable for specified pitch as defined by manufacturer. Installation to be in accordance with BS 5534 and BS 8000
150 x 75/50mm C16 rafters @ max 400mm/c to Engineers design.
125 Kingspan Kooltherm K7 pitched roof board laid between rafters & underlined with 62.5mm Kingspan Kooltherm K18 insulated plasterboard all in accordance with Kingspan recommendations. Roof non-ventilated warm roof system (U value 0.11 W/m2K)
Note all downlights located within sloping soffite or level ceiling lines fitted with intumescent covers / socks to 2 x diameter of downlighter.
Internal lining - 12.5 plasterboard with 3mm skim coat all in accordance with Kingspan recommendations. roof non-ventilated warm roof system in accordance

Velux or sim approved Rooflights with electric operation, installed all in accordance with manufacturers requirements & recommendations utilising recessed installation flashing units suitable for Redland Cambrian slate
Double rafters both sides & to centre with noggin as required to frame opening

Pvcu fascia & v jointed soffite fixed to rafter ends & supported off blockwork
Soffite in v jointed Upvc cladding

Marley deepflow gutter system with leaf guards or grates to outlets.

Svp & mechanical vent units to discharge through roof tiles where pipes pass through felt cut a x with cuts at 45 deg to the roof slope, tongues turned upright around the pipe & wrap with sealant bandage to provide a watertight joint. provide tyvek or sim, approved eaves carrier saves detail all in accordance with tyvek recommendations.
Open svp discharging through roof fitted with protective cage to top, mechanical vent units provided with duct cowl.
Provide proprietary or code 4 lead weathering slate dressed into weathering apron.
Svp to discharge min 900mm above any opening window.

Code 4 lead face to gablet infill on sarking felt on 12mm EQ WBP plywood fixed to rafter face

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Roof Layout

65mm dia rainwater pipe requirements
plan area x 1/2cos pitch / (m² x 650mm/2/3100(3mm dia pipe) = number required
1218 x 1/2cos 29 deg / 9 x 650 / 3100 = 32 number required minimum

- Section 9.0 - ROOF: (MODERATE OR LESS ZONES OF EXPOSURE)
- 9.1.2 WALL PLATE: 50mm x 100mm SW fully anchored to timber frame below. Joints in wall plate to be half lapped.
- 9.2 FELT, VAPOUR PERMEABLE UNDERLAY
Kingspan Nilvent or sim approved unsupported vapour permeable underlay with minimum 20mm gap to top of any insulation to allow roof underlay to drape below biling battens. Roof non-ventilated cold-pitched roof system in accordance with BBA certificate 044161. Horizontal laps of 100mm min & vertical laps of 150mm min. Where pipes pass through felt cut a x with cuts at 45 Deg to the roof slope, tongues turned upright around the pipe & wrap with sealant bandage to provide a watertight joint. Provide Tyvek or sim, approved eaves carrier eaves detail all in accordance with Tyvek recommendations.
In all instances roof underlay at eaves level should be a minimum Type 5U quality felt suitable for use as an exposed roof underlay felt: dressed into the gutter.
- 9.8 ROOF FINISH
9.8.2 Redland Cambrian recycled welsh slates 300 x 338mm to meet the requirements of BS 5543:2003 & BBA Certificate 071907 for specified pitch (min 15 deg @ 75mm headlap & 25 degrees at 50mm headlap, min gauge 210mm max gauge 250mm) as defined by manufacturer. Installation and headlap to be in accordance with BS 5534 and BS 8000 on treated 38mm x 25mm (450mm centre rafters) battens (of size as specified by tile manufacturer) Note battens to be stamped and graded, on vapour permeable underlay (or similar approved) to BS 747 laid to fall to gutters. Tiles nailed & fixed to suite local exposure rating using 30 x 6.25mm ring shanked nails all in accordance with manufacturers recommendations and requirements, broken bonded utilising standard slates, slate-and-a-halfes, all slates twice nailed & once clipped
- 9.9 FLASHINGS: Code 4 lead and soakers in code 3 lead. All leadwork to comply with BS1182: 1982 & in accordance with the Lead Development Associations guide for good practice - LEAD SHEET IN BUILDING. All leadwork on completion to be wiped with 2 coats paintwork oil
- 9.10 LOFT HATCHES:
Proprietary insulated and sealed roof space access traps of suitable size provided at location shown on layout drawing. Where site constructed provide insulated backing. Min size 600 x 550mm. hold down bolts & draught stripping, 75 x 50 pre-treated SW trim between ceiling joists.
- 9.12 PITCHED VALLEY GUTTERS - GRP
Pretreated GRP proprietary units min 350mm wide suitable for roof pitches above 22 degrees & tile or slate roof finish. Integral water check ribs & mortar adhesion strips to sides all in accordance with BS5334 pt1:1990 & BS8000 pt 8 type VG as manufactured by messrs Cavity Trays or similar approved. Installed all in accordance with manufacturers recommendations and requirements.
- 9.13 EAVES BOARDS & SOFFITS
Pre-treated SW packing to rafter ends to give true line. Caracem Celuforn or sim, app. Supaliner / multi purpose white PVC eaves and soffite boards installed complete with all accessories. Soffite boards fixed to 50 x 30mm pre-treated SW bearers plugged & screwed at 600mm centres to brickwork.
- 9.14 ACCESSORIES
Half round ridge tile dry bedded onto upvc profile filler unit utilising st. clamping plate & 100mm st.wood screw with neoprene washer & foam grommet through tile and into st.wood batten fixing strip fixed at each rafter position onto 2 x 38 x 25mm sw battens pre-nailed together, first tile batten 50 x 25mm set 30mm down from apex all in accordance with manufacturers recommendations & requirements. Roof underlay to overlap adjacent roof slope by min 150mm. High-level ridge ventilators for SVP connected via flexible pipe to vent duct as required.
- 9.15 VERGE
Overlapping verge bedded in 1:3 cement on sloping slate or Cape Supalux undercloak fixed below biling battens. 38-50mm overhang. Mortar pointing to be struck vertical.
- 9.17 LEADWORK
All details to be in accordance with lead development association good practice Guide. Lead Flashings code 4 lead, pointed and lead wedged into 35mm raked joint. Lead flashings dressed down over code 4 lead soakers at roof/wall junctions, or 150mm over tiles where a lean-to roof. On completion all leadwork to be Wiped with 2 coats paintwork oil.

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CONTRACT
MONKS GREEN FARM, MONKS GREEN LANE
BRICKENDON, HERTS. SG13 8QL
DRAWING TITLE
OVERALL ROOF LAYOUT

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SCALE
1:100
DRAWING NUMBER
11/MGF/SC/20

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REVISION