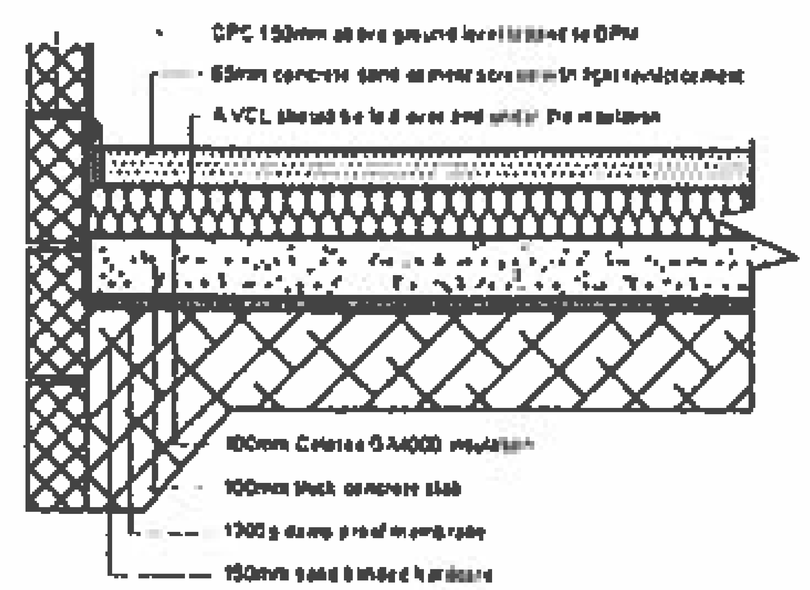
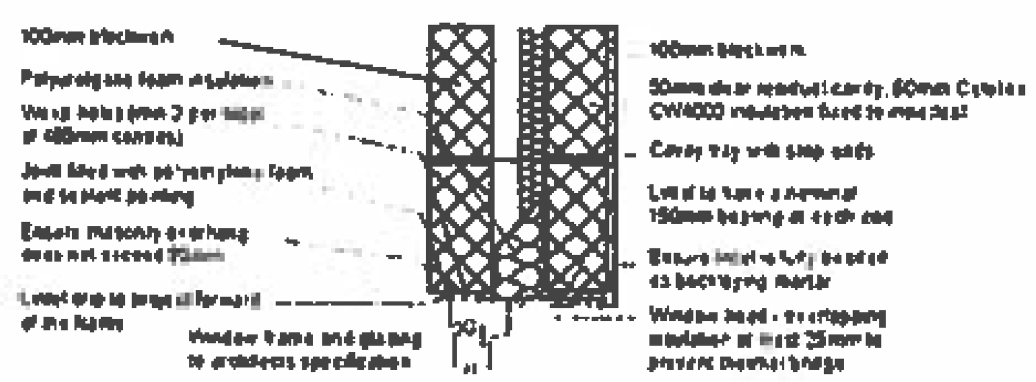
SOLID GROUND FLOOR

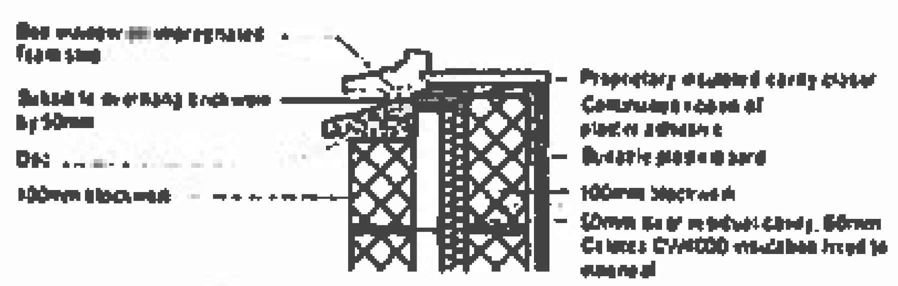


SOLID FLOOR INSULATION OVER SLAB
To meet min U value required of 0.18 W/m²K
Solid ground floor to consist of 150mm consolidated well-rammed hardcore. Blinded with 50mm sand blinding. Provide 100mm ST2 or Gen2 ground bearing slab concrete mix to conform to BS 8500-2 over a 1200 gauge polythene DPM. DPM to be lapped in with DPC in walls. Floor to be insulated over slab and DPM with min 90mm thick Celotex FR5000. 25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed. Finish with 65mm sand/cement finishing screed with light mesh reinforcement.
Where drain runs pass under new floor, provide A142 mesh 1.0m wide and min 50mm concrete cover over length of drain.
Where existing suspended timber floor air bricks are covered by new extension, ensure cross-ventilation is maintained by connecting to 100mm dia UPVC pipes with 100mm concrete cover laid under the extension. Pipes to terminate at new 65mm x 215mm air bricks with cavity tray over.

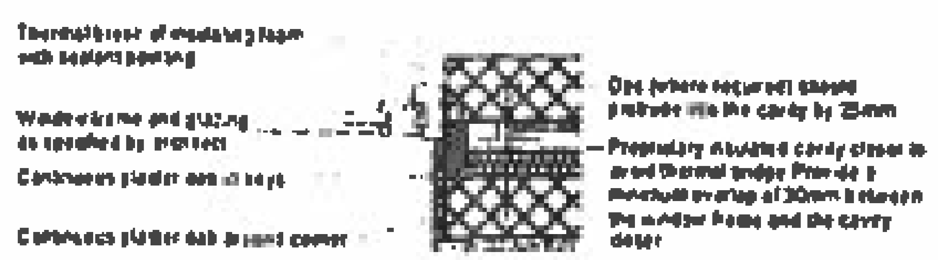
WINDOW HEAD AND LINTEL



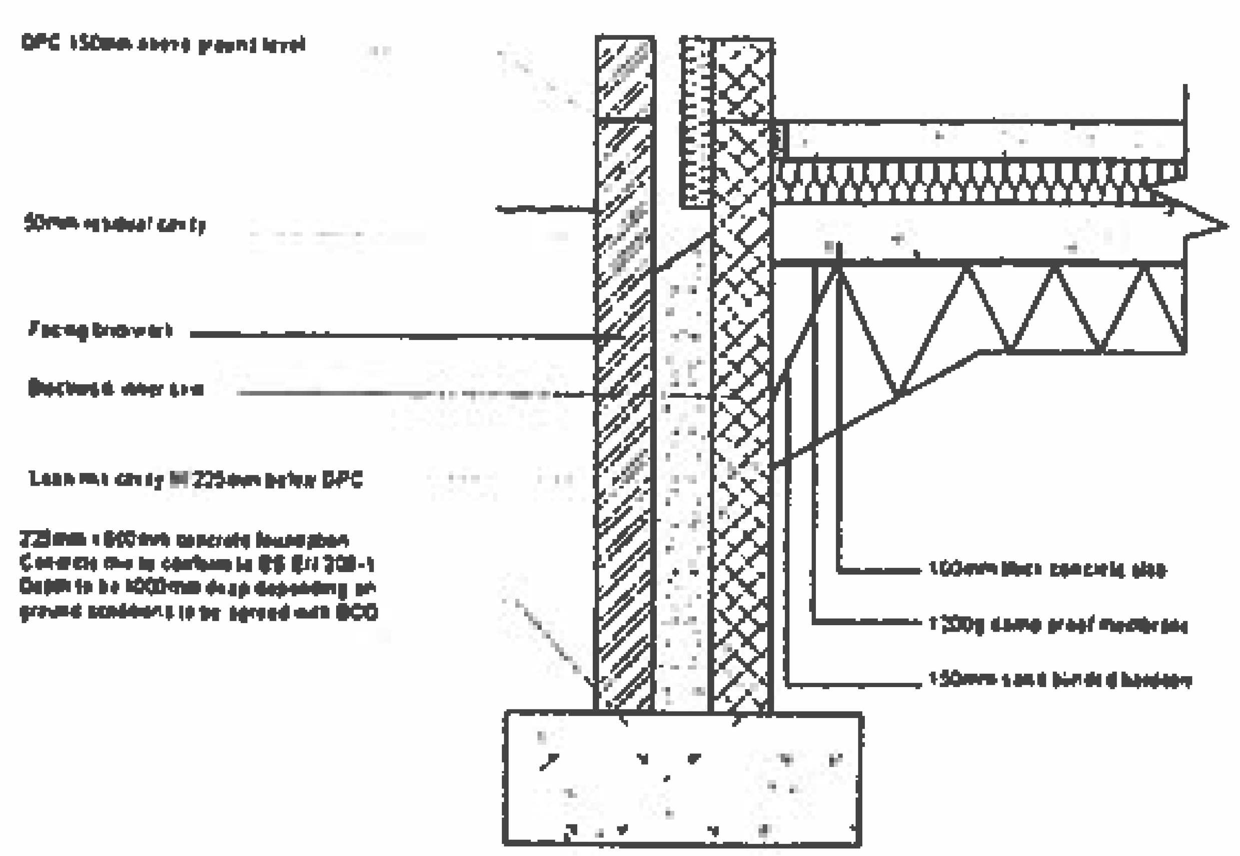
WINDOW SILL



WINDOW REVEAL (Plan)



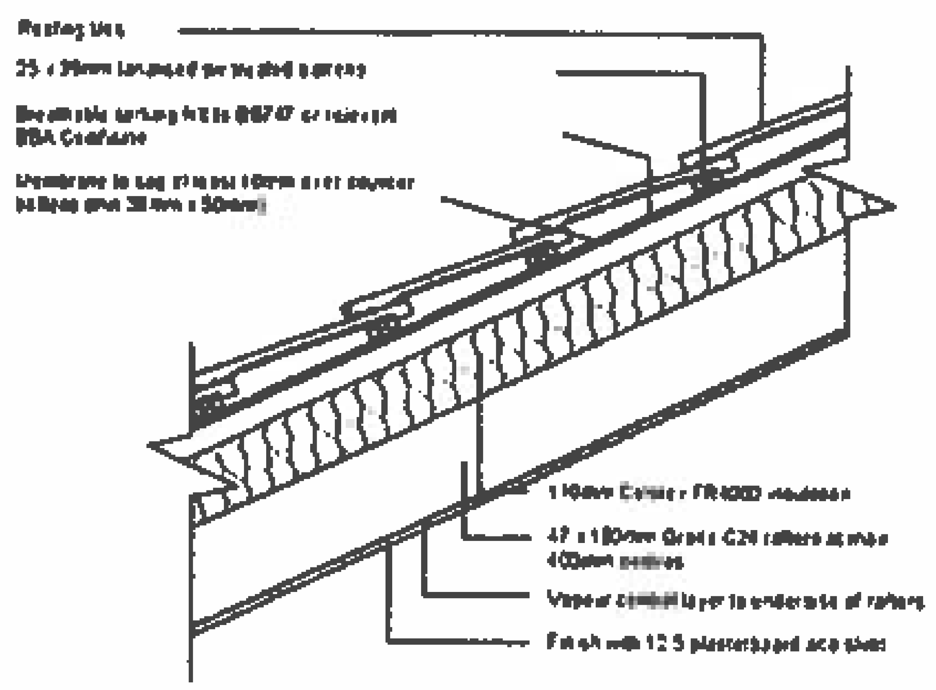
STRIP FOUNDATION



STRIP FOUNDATION
Provide 225mm x 600mm concrete foundation, concrete mix to conform to BS EN 206-1 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004:1986 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a structural engineer should be sought.

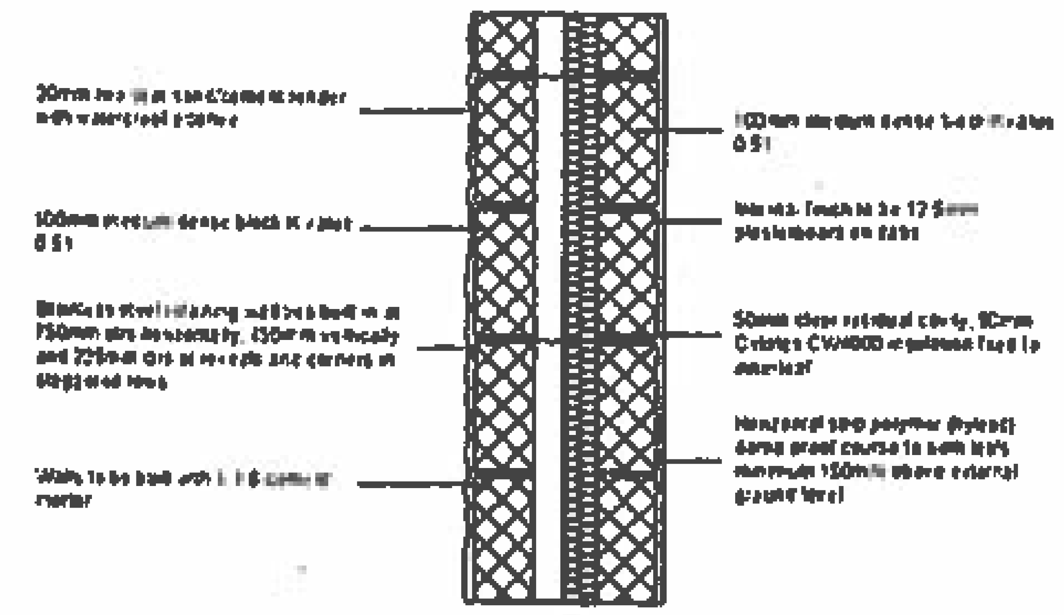
WALLS BELOW GROUND
All new walls to have Class A blockwork below ground level or alternatively class engineering brickwork in 1:4 masonry cement or equal approved specification. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes.

WARM PITCHED ROOF



WARM PITCHED ROOF
To achieve min U-value required of 0.18 W/m²K
Timber roof structure to be designed by an Engineer in accordance with NHBC Technical Requirement A5 Structural Design. Calculations to be based on BS EN 1995-1-1. Roofing tiles to match existing fixed to tile battens secured over breathable sarking felt to relevant BBA Certificate allowing the breather felt to sag at least 10mm over preservative treated counter battens (min 38mm x 50mm). Provide 110mm Celotex FR4000 insulation boards installed under the counter battens and over 47 x 150mm timber rafters strength class C24 at 400 c/c. A vapour control layer should be provided to the underside of the rafters. Finish with 12.5 plasterboard and skim.
Restraint strapping - Ceiling joists tied to rafters (if raised collar roof consult structural engineer). 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 rafters with noggins. All straps to be 1000 x 30 x 5mm galvanised straps or other approved to BS EN 845-1 at 2m centres.

STANDARD RENDERED PARTIAL FILL CAVITY WALL



PARTIAL FILL CAVITY WALL
To achieve minimum U Value of 0.28 W/m²K
20mm two-coat sand/cement render to comply to BS EN 13914-1:2005 with waterproof additive on 100mm medium dense block. Ensure a 50mm clear residual cavity and provide 60mm Celotex CW4000 insulation fixed to inner leaf constructed using 100mm medium dense block 0.51 or lower. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1:6 cement mortar.

DPC
Provide horizontal strip polymer (hyload) damp proof course to both internal and external skins minimum 150mm above external ground level. New DPC to be made continuous with existing DPCs and with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed.

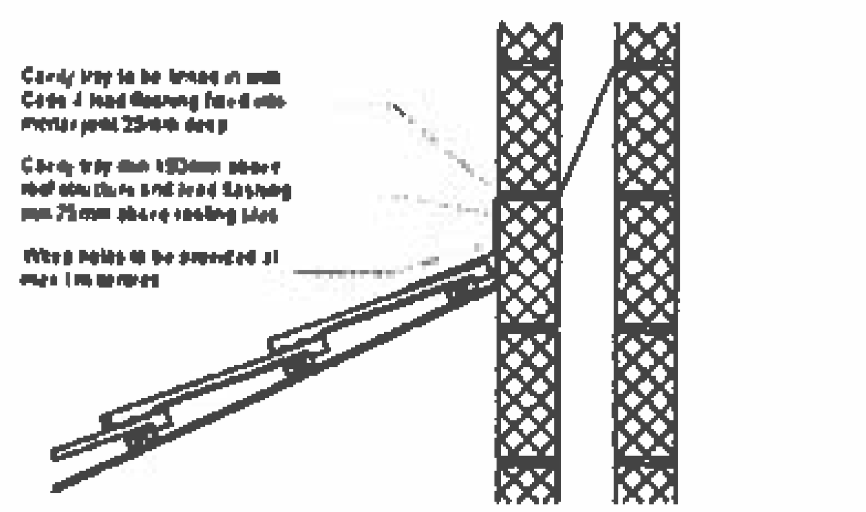
WALL TIES
All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm c/c horizontally, 450mm vertically and 225mm c/c at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS 5628-6-1:1996 and BS EN 845-1:2003.

CAVITIES
Provide cavity trays over openings. All cavities to be closed at eaves and around openings using Thermabate or similar non-combustible insulated cavity closers. Provide vertical DPCs around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres.

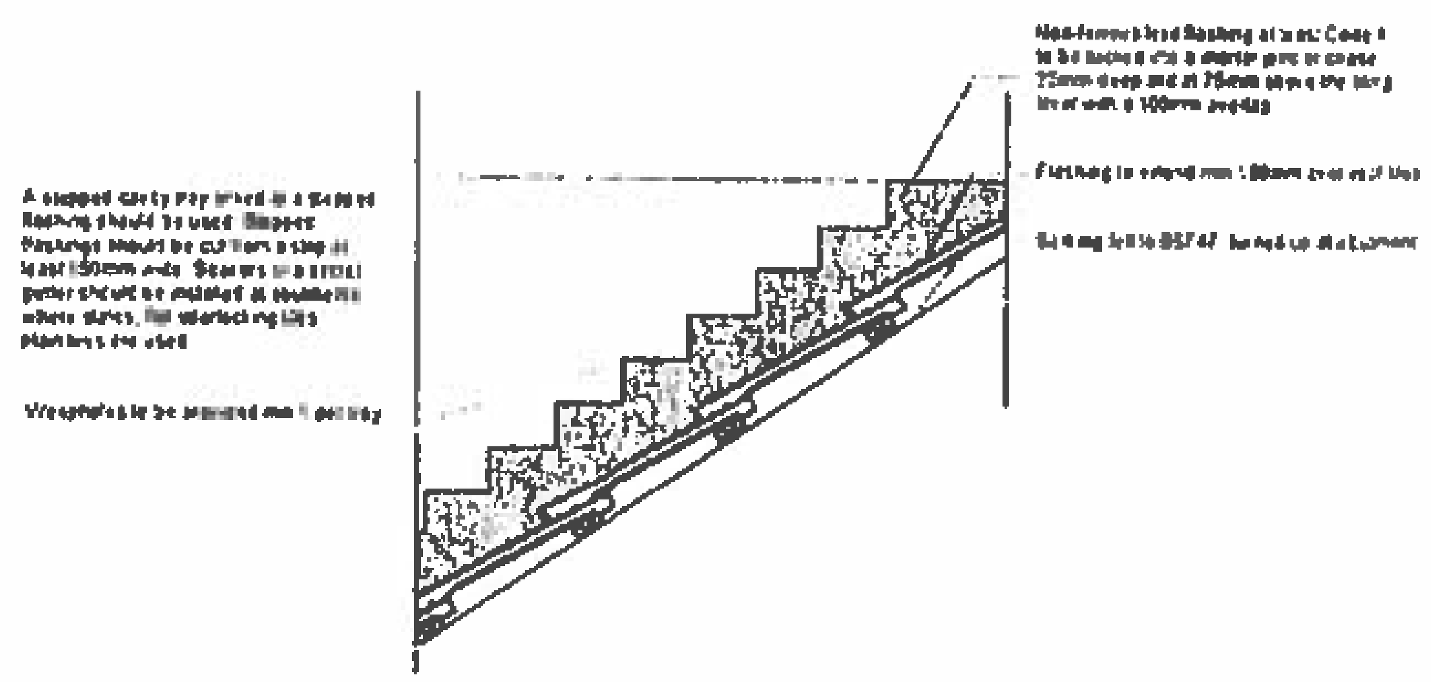
EXISTING TO NEW WALL
Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abut the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

CAVITY BARRIERS
30 minute fire resistant cavity barriers to be provided at all tops of walls, gable end walls and vertically at junctions with separating walls & horizontally at separating walls with cavity tray over installed according to manufacturers details.

PITCHED ROOF AND WALL ABUTMENT



PITCHED ROOF ABUTMENT WITH CAVITY WALL



Arkiplan

F. 74 Cardiff Road, CF15 7QE
enquiries@ArkiPlan.co.uk

client:	job:	drawing title:
55 Woodborough Road, Winscombe, Northsomerset BS251AG	[redacted] WINDOW EXT	Specification, Section Detail Drawings 1:10
	date: 27 May 2020 / scale: As Shown@A1	drawing number: 19-0220 D05