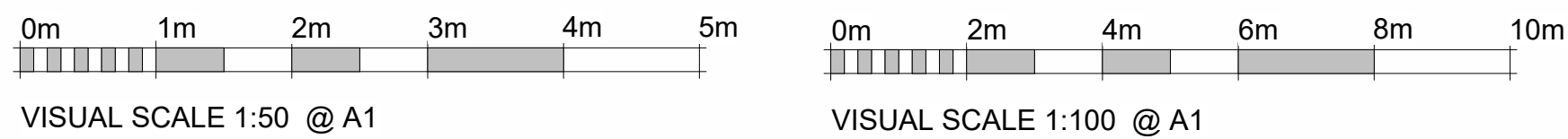


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NEW AND REPLACEMENT DOORS

New and replacement doors to achieve a U-Value of 1.4W/m²K. Glazed areas to be double glazed with 16-20mm argon gas and soft low-E glass. Glass to be toughened or laminated safety glass to BS EN ISO 12543-1, Part K (P1 in Wiles) of the current Building Regulations.

Insulated plasterboard to be used in reveals to avoid jamb and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals.

Windows and door frames to be taped to surrounding openings using air sealing tape.

SAFETY GLAZING
All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1 and Part K (Part N in Wales) of the current Building Regulations, i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

ESCAPE WINDOWS

Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. Windows to have an unobstructed openable area that complies with:

- minimum height of 450mm and minimum width of 450mm.
- minimum area 0.33m².
- the bottom of the openable area should be not more than 1100mm above the floor.
- The window should enable the person to reach a place free from danger from fire.

VENTILATED FLAT ROOF
 (Imposed load max 1.0 kN/m² – dead load max 0.75 kN/m²)
 To achieve U value of 0.15 W/m²K
 Flat roof covering to be single ply roofing membrane with air firing in accordance with BS EN 13501-1:2018 and with a current BBA Certificate, or other approved accreditation, on 18mm exterior grade plywood, laid on firings to give a 140 all on 47 x 200mm grade C24 joists at 400 ctrs, max span 4.55m [see Engineer's details for sizes]. Cross-ventilation to be provided on opposing sides by a proprietary eave ventilation strip equivalent to 25mm continuous with the roof profile. Flat roof insulation to be continuous with the wall insulation – provide 250mm rigid PIR insulation above the insulation for ventilation, between joists and 150mm Celotex under joists and 40mm TB4000 under joists. Provide 12.5mm plasterboard over vapour barrier to the underside of the insulation. Plasterboard to be fixed joists and finished with a plaster skim.
 Provide cavity tray where roof meets existing wall. Provide restraint to flat roof by fixing using of 30 x 5 x 1200mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall.
GENERAL: GUIDE BASED ON NORMATIVE CONDITIONS FOUND IN DOMESTIC CONSTRUCTION. IT IS YOUR RESPONSIBILITY TO ASSESS YOUR DESIGN TO ASCERTAIN WHETHER ADDITIONAL CALCULATIONS ARE REQUIRED. PLEASE REFER TO THE TRADE DOCUMENT – SPAN TABLES FOR SOLID TIMBER MEMBERS IN FLOORS, CEILING AND ROOFS FOR DWELLINGS OR ASK YOUR BUILDING CONTROL OFFICER FOR ADVICE.

TRUSSED RAFTER ROOF
 To achieve U-value 0.15 W/m²K.
 Pitched roof to be formed using proprietary prefabricated manufactured trusses. Design of roof trusses to be produced by specialist truss manufacturer to BS EN 1995-1-1:2004 Eurocode 5.
 Design of timber struts (A+20A1), and submitted to Building Control for approval prior to commencement of work. Trusses to be placed at max 600c/c in accordance with BS EN103-3:2009 and BS EN 1995-1-1 (A+20A1) on suitable wall plates fixed using proprietary galvanised steel truss clips. All strapping, lacing and bracing to be in accordance with manufacturer's instructions.
 Mechanical roof trusses to 100 x 50mm xw treated wall plates using galvanized steel truss clips.
 Trusses to be spaced using 12.5mm plastic batten and min 5mm brittle multi-finish plaster, installed at ceiling level to be two layers of Rockwool insulation to total 300mm laid over joists (cross direction). Provide polythene vapour barrier between insulation and plasterboard.
 Where required provide opening at eaves level at least equal to continuous strip 25mm wide on two opposite sides to promote cross-ventilation and provide mono pitched roofs with eaves level at least equivalent to a 5mm gap.
 All roof trusses to be installed in accordance with manufacturer's details.
 Loft hatches should be suitable designed and installed to ensure optimum air tightness.

FULL FILL CAVITY WALL
To achieve minimum U Value of 0.18 W/m²K (actual U Value achieved 0.17 W/m²K)
20mm two coat sand/cement render to comply to BS EN 13914-1 with waterproof additive on 100mm lightweight block, 0.15 W/m²K, e.g. Celcon solar, Toplite Standard. Full fill the cavity with 90mm Celotex Thermacore Cavity Wall 21 at manufacturer's details. Inner leaf to be 100mm lightweight, 0.15 W/m²K, e.g. Celcon solar, Toplite standard. Internal leaf to be 12.5mm plasterboard on studs. Walls to be built with a 1:3 cement mortar.
Vertical joints in the bond must be staggered and all joints tightly butted.
All details including corner and junction to be as relevant 88A certificate.
Location to be assessed for suitability of insulation boards.
10mm cavity to be provided if required.

FULL FILL CAVITY WALL
To achieve minimum U Value of 0.18 W/m²K (actual U Value achieved 0.15 W/m²K)
New cavity wall to comprise of 103mm solid facing brick. Full fill the cavity with 115mm Celotex Thermoclas Cavity Wall 21 as manufacturer's details, leaving 10mm cavity between the insulation and outer skin, inner leaf constructed using 100mm lightweight block, 0.15 W/m²K, e.g. Celcon solar, Thermite turbo. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1:6 cement mortar.
Vertical joints in the board must be staggered and all joints tightly butted.
All details including corner and junction to be as relevant BBA certificate.
Location to be assessed for suitability of insulation boards.

SMOKE DETECTION

Mains operated linked smoke alarm detection system to BS EN 14604 and BS 5839-6:2019 to at least a Grade D category LD3 standard and to be mains powered with battery back up. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/storerooms and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

SUSPENDED BLOCK AND BEAM FLOOR
 To meet min i value required of 0.18 W/m²K - P/JA ratio 0.5
 Remove top soil and vegetation and apply weed killer – provide 50mm concrete ground cover if required by Building Control

The underside of beams to be not less than 150mm above the top of the ground. PCC beams to be supplied and fixed to beam manufacturer's plan, layout and details (details and calculations to be sent to Building Control for approval before works commence). Beams to have a minimum bearing of 100mm onto DPC and load bearing walls. Provide concrete blocks BS 81772-2 wet and ground floor and 100mm concrete blocks BS 81772-2 on upper floors. Provide 100mm non-lead beamed partitions, Lay 200g DPM 200g DPM barrier over beam and block floor, with 300mm laps double wetted and taped at joints and service entry points using radon gas proof tape. Lay floor insulation over DPM. 90mm Celotex GA4000 applied as a rigid material. 25mm insulation to continue around ground perimeters to external walls.

Lay 500g separating layer over insulation and provide 75mm sand/cement screed over and prepare for floor finishes as required. The top surface of the ground cover under the building shall be above the finished level of the adjoining ground.

Ventilation - Provide cross-ventilation of the under floor to outside air by ventilators in at least 2 locations. Provide 100mm diameter ventilators with louvres and openings having an opening area of 1500mm² per metre run of perimeter wall or 500mm² per square metre of floor area, whichever is the greater. Sleeper walls shall be of honeycombed construction or have provision for distribution of ventilation.

TRENCH FOUNDATION
Provide 600mm x 600mm x 450mm trench fill foundations, concrete mix to conform to BS EN 206 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be determined by the Building Control Officer to suit the conditions. All casted in accordance with 2010 Building Regulations A172 and BS 8004 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 concrete to be used where there is any indication of sulphate in the soil conditions or otherwise. If no sulphate in soil type be found or any major trace 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 below ground to be constructed using blockwork compliant with BS EN 771 and suitable for below ground level or semi engineering brickwork. Walls to be built using 1:4 masonry mortar mix or equal approved specification to BS EN 1996-1-1. 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.

STEPPED FOUNDATION (trench)
Stepped foundations should overlap by twice the height of the step, or 1m whichever is the greater. The height of the step should not be greater than the thickness of the foundation.

[illegible]

Sectional View

1 : 25

All drawings are for the purposes of planning only unless marked for construction.

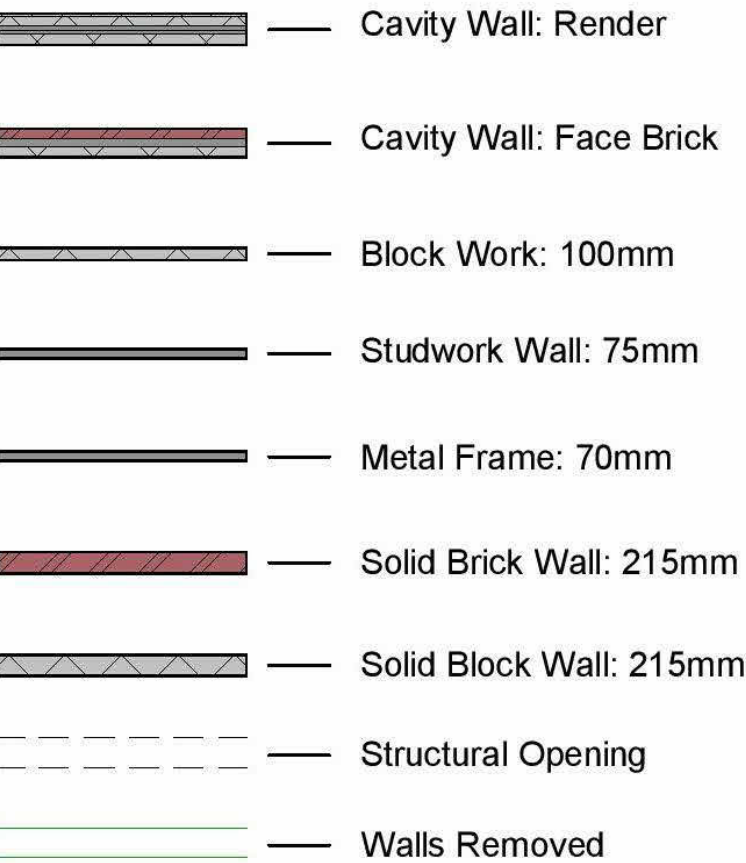
All builders to site measure to confirm measurements and layout for setting out, especially door and window positions.

Report all discrepancies to the person named below, do not proceed without instruction.

BRO take no responsibility should any drawing/s unless specified are used for building purposes and measurements should be checked on site.

All drawings remain the property of BRO Architecture

Wall Structure Key:



Ducting Colour & Use

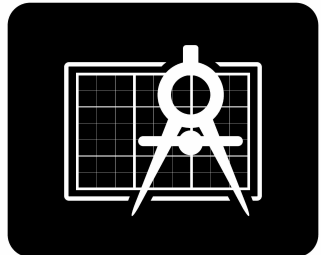
Red	Electric cable
Yellow	Gas Pipe
Blue	Water pipes
Green	Data/Comms
Grey	BT
Purple	Security - Cameras
Orange	Garden Lighting non Security

Drainage Key

S	Storm Drainage
MH	Manhole
FD	Foul Drainage
SVP	Soil Vent Pipe
GP	Gulley Pot
RWP	Rainwater Pipe
AD	ACO Drain

	Single Power Socket		Fire Alarm Panel		Distribution Board
	Double Power Socket		Shaver Socket		Smoke Detector
	Cooker Point		Speaker Point		Heat Detector
	Unswitched Fused Spur		TV Aerial Point		Carbon Monoxide Detector
	External Power Socket		Floor Box		Extract fan
	Telephone Point		Floor Socket		Underfloor heating control
	Cat 6 Data Point		Passive Extract		
	Extract Vent		Mechanical Extract		

DRAWING NUMBER



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DESIGNING YOUR DREAMS

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CLIENT

Richie Dent

SITE ADDRESS

69 Dorset Cres Newport
NP19 4QF

PROJECT NAME

Proposed Side & Rear Extension

DRAWING NAME

Proposed Sectional View

DATE
30th Oct 25

REV

DRAWN BY
SH

SCALE (@ A1)
1:25

CHECKED BY
Client

PROJECT NUMBER
SH/BRO/301025-RD

B1-0