

General Specifications

All sizes to be checked by Contractor on site prior to construction
All new drainage to comply with BS 5572: 1994
All drainage to be carried out in accordance with the manufacturers instructions and to the satisfaction of the Local Authority.

Floor Construction: (U Value 0.15W/m2K)

150mm concrete floor to engineers specification laid on 100mm Celotex XR4000 (or similar approved) on visqueen damp proof membrane installed to manufacturers details on 150mm compacted type 1 material.
Wall Construction: (U Value 0.17 W/m2K)
External leaf to comprise of rendered block as shown on elevations with stainless steel wall ties at 600mm horizontal ctrs (stud centres) & 450mm vertical ctrs & at 225mm ctrs within 300mm of openings.

Fire Stops

Fire stops to be located at every opening within external wall, change in direction and separating floor/junctions, eaves level, TCB cavity barrier or equal, 8m centres maximum and around all window and door openings.
TCB cavity barriers (or equal) to be installed in newly formed openings in existing walls.
Roof ventilation, fascias & soffits
Roof fascia & bargeboards to be in 16mm PVCu boards, soffits to be in 9mm PVCu boards, all fixed in strict accordance with the manufacturer's site work instructions.

Transmission of sound

All party walls and intermediate floors to be constructed in accordance with section 5.2 of the technical hand book and the BSD standard details as noted below.
Internal walls (Type 1A)
Single layer of gypsum based board of minimum mass per unit area 10 kg/m2
Timber frame minimum 75 mm studs at maximum 600 mm centres.

Internal drainage

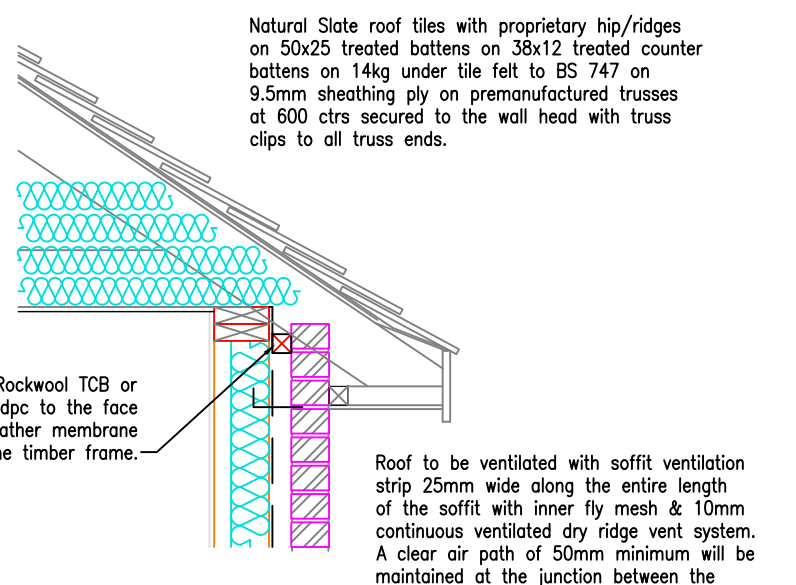
Where SVP is enclosed in a duct a removable panel shall be provided adjacent to the SVP access point.
Wastewater drainage installation to be in accordance with BS EN 12056-2:2000.
Rainwater drainage
Rainwater drainage to consist of half round PVCu gutting and fittings connected to 68mm circular downpipes, all by Marley Plumbing & Drainage. PVCu downpipes. All gutters and downpipes to match existing.

Heating

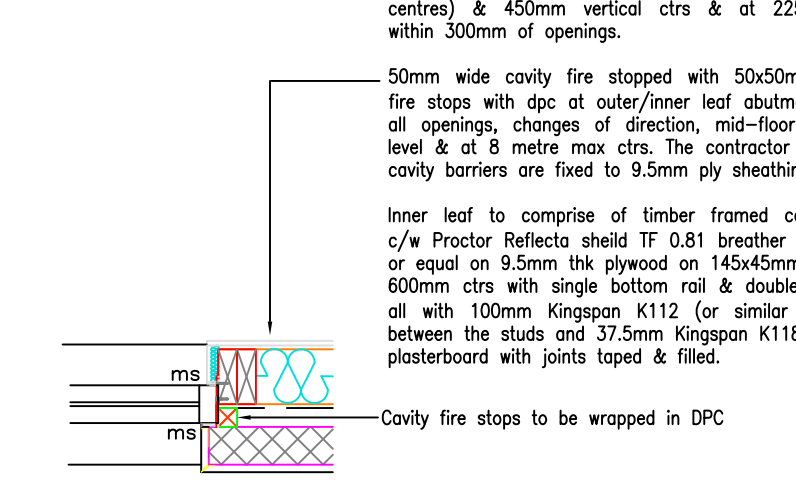
Ground floor extension to be heated with radiators fed from existing 'A' rated gas fed boiler.
All new radiators to be fitted with TRVs. **TRVs to be located at the top of radiator at a height of 600-800mm from FFL.
Energy Hot water supply pipes:
All new hot water supply pipes to be wrapped in insulation to protect against heat loss.

Light fittings

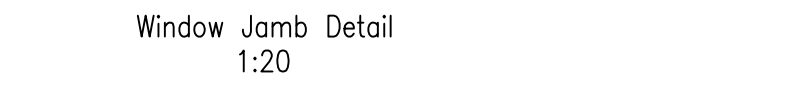
All lighting to be installed in accordance with manufacturers instructions.
Recessed downlights:
Where recessed light fittings are to be used, LED compact fluorescent or low voltage tungsten lamps are to be used to minimise heat build up.
The fittings are to be fitted in non combustible enclosures and to be fitted with 75mm clearance around the fitting for air to circulate. The enclosure is to be sealed to prevent air leakage into the attic space.



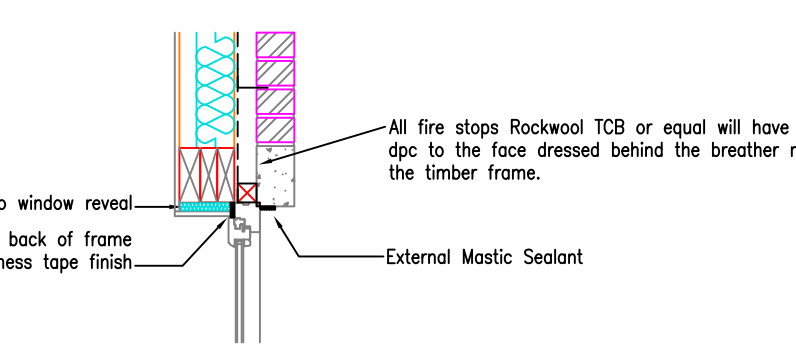
Roof Detail 1:20



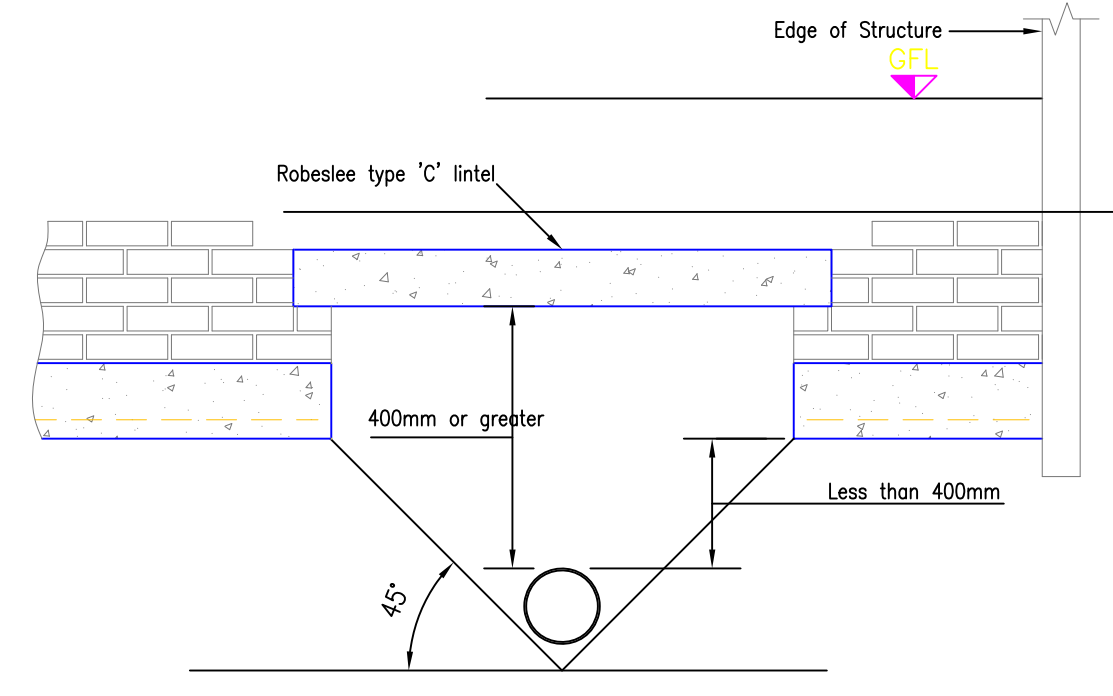
Window Cill Detail 1:20



Window Jamb Detail 1:20



Window head Detail 1:20



Pipe Build Over Detail 1:20

Setting out

Contractor to check all setting out and all existing dimensions prior to commencement of works. The contractor is responsible for the accuracy of all dimensions and correct setting out. Any discrepancies to be brought to the immediate attention of the architect. All setting out (unless stated otherwise) to unlined faces. All dimensions are in millimetres unless noted otherwise. No dimensions to be scaled off drawings.

DPC

Horizontal DPC to be minimum 150mm above adjacent ground level and to be UPEC felt to BS 6398 1BR OR Visqueen. Vertical DPC with insulation to be provided to all openings in external walls. All DPC's/DPM's to be continuous throughout, any penetrations to be sleeved.

Cavity ventilation

To ensure ventilation and drainage of cavity, provide open perpend at maximum 1200mm centres at the base of wall of horizontal cavity barriers, over lintels at maximum 900mm centres (minimum 2 open perpend over window or door) and at cavity trays.

Cavity Barriers - Rockwool TCB or Equal

Vertical cavity barriers to be provided at external corners. Cavity barriers to be fixed to studs/sheathing. All cavity barriers to be protected with polythene DPC. DPC over horizontal barrier to be tucked beneath breather membrane. Joints between horizontal and vertical cavity barriers must be tightly butted, with horizontal DPC lapped over vertical.

It is essential that the continuity of cavity barriers be maintained at eaves level.

Timber frame details

Timber frame to be designed, fabricated and erected in accordance with BS EN 1995-1-1:2004+A1:2008.
All structural and permanent exterior timber to be pressure impregnated against rot and fungal attack after cutting and prior to delivery.

All site cut timbers to be site treated.

All structural timber to be stress graded kiln dried C1S.

Limiting Infiltration

- a. sealing the gaps; at roof space openings, between dry linings and masonry walls at the edges of window and door openings, and at the junctions between walls, floors and ceilings.
b. sealing vapour control membranes in timber framed and other framed panel constructions.
c. sealing at service penetrations of the fabric or around boxing/ducting for services.
d. fitting draught seals to the openable parts of windows, doors, access hatches and rooflights.

the extension shall have vapour barrier (also acting as air tightness barriers) to the new external walls & roofs, form using visqueen 1000 gauge vapour barrier (or equal) stapled to the timber framing / underside of roof timbers. All laps in the barrier to be a minimum of 150mm, with all joints sealed with firstly double sided tape (50mm wide) and a secondary 50mm wide tape to the room face of the lap.

roof barriers to lap a minimum of 100mm over the external wall barriers with joints sealed as before.

the fitting of all barriers to be neat, tight to the timber and without bulges or ripples.

carefully fold barrier in to window and door heads / cills / jambs and staple in place. add additional lap of barrier to corners and seal as before to maintain air tightness.

apply air tightness tape between vapour barrier and face of window frame or door frame prior to application of wallboard.

ensure precise workmanship to limit thermal heat loss through gaps.

Boundary Wall Construction: (U Value 0.17 W/m2K)

External leaf to comprise of rendered block as shown on elevations with stainless steel wall ties at 600mm horizontal ctrs (stud centres) & 450mm vertical ctrs & at 225mm ctrs within 300mm of openings.
50mm wide cavity fire stopped with 50x50mm timber fire stops with dpc at outer/inner leaf abutments & at all openings, changes of direction, mid-floor & eaves level & at 8 metre max ctrs. The contractor to ensure cavity barriers are fixed to 9.5mm ply sheathing.

Expansion joints to be provided in accordance with engineers recommendations.

Perpend ventilators to be provided to the top and bottom of every external wall at maximum 1200mm ctrs and where a horizontal fire stop obstructs the air flow perpend vents to be installed above and below the fire stop position.

All fire stops (50x50), Rockwool TCB or equal will have the dpc to the face dressed behind the breather membrane of the timber frame.

U value: 0.17 W/m²K
Spread of flame: low risk
Fire rating: 30 minutes

U value: 0.12 W/m²K

Spread of flame: low risk
Fire rating: 30 minutes

U value: 0.17 W/m²K

Spread of flame: low risk
Fire rating: 60 minutes

U value: 0.12 W/m²K

Spread of flame: low risk
Fire rating: 30 minutes

U value: 1.4 W/m²K

Spread of flame: low risk
Fire rating: 30 minutes

U value: 0.12 W/m²K

Spread of flame: low risk
Fire rating: 30 minutes

U value: 1.4 W/m²K

Spread of flame: low risk
Fire rating: 30 minutes

U value: 1.4W/m2K.

Glazing Allowance - EXTENSION:

Table with 2 columns: Proposed ground floor Space, 25% Allowance, and TOTAL. Values: 30.09m², 7.725m², 11.58m².

Area of exist openings lost: 3.63m²

Actual Area of new glazing: 10.16m²

Area of glass > allowable area COMPLIANT

Position of new radiators are to be treated as provisional until plumbing sub-contractor confirms radiator sizes.

Central heating

The design of the installation to be the responsibility of the plumbing sub-contractor.

New radiators to be fitted with thermostatic radiator valves.

Pipework in solum, voids & ducts or above ceilings & within walls to be insulated with 15mm class '0' foam, all as per BS 5422: 2009

All pipework to be securely fixed to building structure with metal pipeclip and backplate.

All new pipework to be copper to BS 2871 or pex barrier pipe.

Downtaking/demolition notices:

all scaffolding and barcodes to be erected and checked in accordance with bs 5973 and bs 5974, all demolitions to be carried out in strict accordance with the health and safety at work etc. act 2000 and bs 6187 : 2000.

The contractor shall be responsible for all temporary works necessary to ensure the stability of the existing structure at all times.

The existing structure must be securely propped prior to removal of walls. The props must remain in position until the load can be carried by the new beam packed to the underside of brickwork and mortar cured. All masonry to be saw cut with diamond tipped blade prior to removal of masonry to avoid disruption to remaining walls.

Any unsound masonry should be removed and rebuilt using class 1 engineering brick set in 1:3 mortar, cross bonded or laid to existing with proprietary wall start systems. If in doubt about support consult engineer for direction.

Any unusual unforeseen features exposed during works effecting proposals different from that shown on the detailed proposals should be referred to the architect/engineer for direction prior to progressing further. Upon removal of plasterboard finishes walls should be inspected for any unforeseen structural elements prior to commencement of works to confirm nature of structure shown on the drawings.

Electrical Specification:

All electrical installations are to comply with the relevant requirements of BS 7671:2018 (Am+3:2015) and to be undertaken by a contractor with membership to SELECT or NCEIC.

All electrical work to comply with the up to date IEE Regulations

sockets for appliances to be single at low level and switched above worktop in a location to suit appliance, fitted with a neon light and labelled.

Electrical fixtures:

Outlets and controls of electrical fixtures and systems should be positioned at least 350mm from any internal corner, projecting wall or similar obstruction and, unless the need for a higher location can be demonstrated, not more than 1.2m above floor level.

This would include fixtures such as sockets, switches, fire alarm call points and timer controls or programmers. Within this height range:

- 1. Light switches should be positioned at a height of between 900mm and 1.1m above floor level.
2. Standard switched or unswitched socket outlets and outlets for other services such as telephone or television should be positioned at least 400mm above floor level.
3. Above an obstruction, such as a worktop, fixtures should be at least 150mm above the projecting surface.
4. Where sockets are concealed, such as to the rear of white goods in a kitchen, separate switching should be provided in an accessible position, to allow appliances to be isolated.

Carbon Monoxide Detectors:

new battery operated carbon monoxide detectors to BS EN 50291-1: 2010

Light fittings:

All lighting to be installed in accordance with manufacturers instructions.

Recessed downlights:

Where recessed light fittings are to be used, LED compact fluorescent or low voltage tungsten lamps are to be used to minimise heat build up.

The fittings are to be fitted in non combustible enclosures and to be fitted with 75mm clearance around the fitting for air to circulate. The enclosure is to be sealed to prevent air leakage into the attic space.

Light switches to be located 900-1050 from FFL

Ventilation

Ventilation to all rooms to be via opening windows to 1/30th of the floor area, trickle ventilation of 12,000mm2 to all apartments.

Purge ventilation to all rooms by means of External doors; Opening sash windows; Hinged or pivot windows with an opening angle of greater than 30 degrees providing an opening area 1/20th of the room they serve.

Mechanical extract fans c/w isolators to the en-suite and bathroom to be ceiling mounted with a 15 litre/second or more extraction rate as shown on plan and ducted to a grill in the soffit via 100mm flexi duct.

Kitchen fan to be exclair DX400 or equal c/w isolator to give an intermittent extraction rate of 60 litres/second or 30 litres/second if extract is via cooker hood.

Bathroom/toilet fans c/w isolators to give an extraction rate of 15 litres/second and utility fan to give 30 litres/sec.

Combustion Appliances - Gas Boiler

Existing gas fired boiler located upstairs to be retained - no works proposed. Should this change, any and all works are to be designed and installed by specialist contractor in full compliance with section 3.21 (air for combustion) of the technical standards.

A sufficient air supply in accordance with BS EN 5440-2:2000 must be maintained to ensure safe and efficient boiler use inclusive of cooling.

Underground drainage

All drainage runs below ground level to be in 100mm dia. PVCu; minimum fall 1:80, set in 150mm pea gravel surrounds.

All new underground drainage to be to the complete satisfaction of local authority Building Standards Department and Scottish Water.

Pipes passing through the structure to have Robesleeve Type C non-composite lintels over to support masonry above and to have 50mm space between pipe and masonry with opening mastic pointed on both sides.

Hot & cold water:

All new distribution pipework, required to achieve new layout, to be sized to suit.

draw off valves should be located at low points of the system to ensure that the system can be fully drained down.

hot water points of delivery to be fitted with anti-scauld devices that prevents hot water discharge exceeding 48 degrees c.

General pipework:

all new pipework to be fully supported.

all new pipework to be fully insulated in accordance with BS5422: 2009.

holes for pipe runs shall be of the minimum diameter necessary and shall be centered in the neutral axis of timbers. notching and drilling of joists to be within the limitations set out in the nhbc good craftsmanship guide (carpentry and joinery - carcassing).

Heating

Ground floor extension to be heated with radiators fed from existing 'A' rated gas fed boiler.

All new radiators to be fitted with TRVs. **TRVs to be located at the top of radiator at a height of 600-800mm from FFL.

Energy Hot water supply pipes:

All new hot water supply pipes to be wrapped in insulation to protect against heat loss.

All alterations to existing hot water supply pipework to be wrapped in insulation to protect against heat loss.

Existing hot water supply pipes to be wrapped in insulation as far as reasonably practical.

Energy Fixed internal lighting:

75% of the fixed light fittings and lamps installed within the dwelling should be low energy type, with a luminous efficiency at least 45 lumens/circuit watt, for example tubular fluorescent and compact fluorescent fittings. these fittings may be either:

dedicated fittings which will have a separate control gear and will only take low energy lamps (e.g. pin based lamps); or standards fittings supplied with low energy lamps with integrated control gear (e.g. bayonet or edison screw base lamps).

all recessed light fittings to be fitted with galvanised steel downlight guards to prevent overheating.

Energy Fixed external lighting:

fixed external lighting should either:

be rated at not more than 100 lamp watts per light fitting with automatic control by movement detection (e.g. pir) and photocell to ensure operation only when needed; or

have fittings with an efficiency of at least 45 lumens per circuit-watt, with automatic control by photocell to ensure operation only when needed.

in addition to the above, manual switching may be provided to override operation of automatic controls.

Energy Mechanical Ventilation:

All new mechanical extract fans to be compliant with section 6.6.3 of the domestic building regulations and have a power of:

Intermittent extract ventilation: 0.5W/l/s
Continuous supply ventilation: 0.5W/l/s
Continuous extract ventilation: 0.5W/l/s

Security:

All new windows and doors are to be designed and installed in full compliance with section 2 of 'Secure by design' scheme. (ACPO 2009). All fixings are to be designed to the recommendations given in section 8 of BS 8213-4: 2007 and undertaken by a specialist contractor.

- 1. This drawing is to be read in conjunction with all relevant engineering drawings and specifications.
2. All dimensions are in millimetres unless stated otherwise.
3. The contractor is to verify all dimensions on site and is responsible for the accurate setting out.
4. Do not scale from this drawing. All sizes scaled from this drawing will be approximate and should be checked on site by the user of this document.

B Revised to suit client comments DA 23/10/23

A Revised to suit client comments DA 2/10/23



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