

General Notes

- Do Not scale from this drawing
- This drawing is to be read in conjunction with all relevant drawings and specifications, i.e. structural engineer's drawings etc.
- The contractor must advise the Designer and Engineers of any discrepancies between the contract drawings and the existing site dimensions
- All dimensions to be checked on site prior to fabrication or erection
- Contractor to take exact measurements on the proposed roof to ensure roof construction c/w lead flashing sits under first floor window cills and does not impede at its furthest projection the internal ceiling height
- Contractor / Client to inform of any underground services within the proposed area prior to commencement of works or ordering of materials.
- No work to be begun until the appropriate approvals (i.e Building warrant and planning) have been received. Initial drawings submitted to the council may require altering to suit local authority comment. Councils stamped drawings should be used during construction.
- Client / Contractor responsibility to investigate existing ground prior to construction with regards to existing underground services, i.e. gas, water etc.
- Scottish Water - It is the Owners responsibility to obtain the appropriate consents from Scottish Water regarding building over Water mains
- Clients responsibility to confirm if in a listed building or conservation area prior to submitting for approvals.
- For Additional information see www.cafdesigns.co.uk
- All dismantlings and demolition works to be carried out in accordance with BS 6187:2011 and the Health and Safety at Work Act 1974
- All works to Building (Scotland) Act 2003 and Building (Scotland) Regulations 2018
- Where the land is sloping at the proposed works or surrounding area, then it is the clients responsibility to provide a survey i.e. topographical survey to provide accurate gradients.
- If in Doubt Ask

Timber frame with 50mm cavity YBS bubble insulation

Proposed Wall Construction :- U-value of 0.17W/m²K

Outer Leaf

- 20mm dry dash roughcast to match existing
 - 100mm medium density blockwork above facing brick to match
 - 50mm clear cavity
- Inner Leaf - Timber frame construction**
- 5mm YBS Breathier Foil FR Foil Bubble
 - 10mm WBP plywood
 - 100mm medium density blockwork below
 - 100x50mm C16 treated timber studs at 600mm centres with double head binders and sole plate.
 - 70mm Kingspan Kooltherm K12 insulation between studs
 - 42.5mm Kingspan Kooltherm K18 insulated plasterboard or 12.5mm foil backed plasterboard and 30 Kingspan Kooltherm
 - Timber frame construction to be tied to existing wall construction as per engineers details
 - DPC to all walls 150mm above ground level and lapped with 1200 Visqueen DPM within floor construction.

Concrete Floor Notes

Concrete Floor Construction :- U-value of 0.15W/m²K

- 22mm treated T&G chipboard flooring onto
- 50x50 treated timber studs
- P/A = 0.73
- 30mm vertical edge insulation
- 200mm concrete foundation
- 100mm Kingspan K103 insulation
- 1200 Visqueen DPM on top lapped up into DPC

Internal Doors:-

- New timber doors to give a clear opening of 800mm to comply with Building (Scotland) Regulations 2013 Part 4.2.4

Internal Door Ironmongery

- Ironmongery to be confirmed by client

Sound Transmission :-

- The new sound and fire separation specification to comply with Building (Scotland) Regulations 2013 Parts 5.1.3 & 5.1.12

Ceilings:-

- Side extension - New ceilings to match existing ceiling height to be formed with 12.5mm foil backed plasterboard, taped, filled and decorated.

General

- All walls and plasterboard ceiling to be painted 1No. coat Primer and 2No. coats Vinyl emulsion all to be finished in colour specified by client
- All work to be carried out as per manufacturers written specifications.
- All sizes to be checked and anomalies to be flagged before commencement of work or purchasing materials

Air Infiltration :-

- Air infiltration limitation to comply with BRE Report 262

Services :-

- All services (i.e. pipework, ductwork etc.) to have appropriate fire dampers at points of openings through separating walls & floors to comply with Building (Scotland) Regulations 2013 Parts 2.2.4 & 2.2.5
- All services passing through foundations to comply with Building (Scotland) Regulations 2013 Part 1.1.1 and meet the BS8004:1986 Foundation Regulation.
- Any service penetrations through a separating wall or floor must be sealed with intumescent mastic.
- Insulation to heating pipes to BS 5422:2009

Insulation of hot water pipes :-

- 19mm wall for 22mm pipes; 25mm wall for 15mm pipes and 9mm wall for radiator supply pipes.

Stove :- Clearview Pioneer 400p stove or similar approved

- Upon completion of the system it must be installed with the appropriate labels to comply with Building Standard 3.17.7
- A Label indicating the limitations of the proposed combustion appliance must be fixed in a secure position on the gas or electricity consumer unit, the water supply stopcock or next to the chimney hearth. The label must be of durable material and indelibly inked.
- All works must be carried out by a HETAS Registered installer
- Minimum distance to walls min 160mm
- To be installed on a non-combustible base
- Recommended 1100mm distance to furniture
- Aperture of the chimney flue must be 150mmØ
- Flue to be double lined flue liner
- Flue to have protective steel cover at top and be a min. 1000mm above roof level as long as the horizontal distance to the roof from the top of the flue is a min of 2.3m to comply with Building Standard diagram 3.20.17
- Flue to be installed with a roof support system (i.e. appropriate joist or rafter support system) and appropriate wall brackets to ensure that the stove is not taking the load of the chimney
- Flue pipe to be 3D away from the wall construction or be 1.5 the depth of the flue as long as there is a non combustible shield up the wall construction
- Appropriate lead flashing around the chimney at point of penetration through the roof.
- The solid fuel heating system should comply with HETAS regulations and guidelines
- Where the flue passes thru combustible material at the roof there should be a min of 25mm from the combustible material to the inner lining of the double walled flue to comply with Building standard 3.18, 3.19 & 3.20.2 & 3.20.4
- Where a flue pipe passes through a roof space it should be surrounded by a rigid mesh that would prevent vermin from building a nest beside the warm chimney.
- A free-standing, solid, non-combustible hearth at least 840 x 840 mm minimum plan area and at least 12 mm thick (glass slate etc. top be confirmed by client), provided the appliance will not cause the temperature of the top surface of the hearth on which it stands to be more than 100° C. to comply with Building Standard 3.19.5
- Access to be provided to the flue for inspection and cleaning to comply with Building Standard 3.20.13
- Install system to manufacturers written recommendations

Fire Protection :-

- End wall nearest neighbouring land (less than 500mm from boundary) to have Medium fire resistance protection to conform to Building (Scotland) Regulations 2013 Part 2.6.1.
- Timber kit at boundary to have 2No. layers of 12.5mm plasterboard with staggered joints
- To achieve medium fire resistance on the side walls all sockets, switches to have galvanised steel back boxes with Firetherms 'Intulec' secured behind.
- Velux window GGL has a fire rating of Double A rated.
- All steelwork to have 2no. layers 12.5mm plasterboard with staggered joints

New Window:- U-value of 1.4W/m²K

- New windows to be UPVC to match existing with white gloss finish and mastic pointing around all edges, fixed into rebated openings within wall and with DPC and insulated cavity closes all round. Window to have cill to match existing, laid on DPC. Window to be double glazed, hermetically sealed units, tilt in turn. Window to be supplied treated and primed for final decoration on site, complete with locking handle. Strap & line ingoes with Gyproc insulated plasterboard. Glazing to be 24mm Double glazed Units. All windows to be lockable All windows to be 60mm Tilt /Turn c/w stay hinges, shoot bolt locking mechanisms and standard cockscrew fittings.
- Windows & Doors to be fitted 'secured by design locks' as per standard 4.13
- Windows & Doors to be installed to BS2134:2007 - Standard DA.13.5 (2013) and product standard and component performance to BS7412:2007 for PVCu Units
- New window to be confirmed by client

Exterior Door:- U-value of 1.4W/m²K

- New rear door to be UPVC colour white to match existing. Door to be fitted with weather bar to base, draught excluders / weather beaters to top and sides. Include for all escutcheons and associated accessories. Doors to have shoot bolt locking mechanisms and standard cockscrew fittings. Strap & line ingoes with Gyproc insulated plasterboard.
- Supply and install threshold units at external door opening, complete with DPC's.
- New door to be confirmed by client
- Doors to be fitted secure by design locks - Windows to BS:7950, Door locks to BS:3621 and doors of enhanced security to BS PAS 24-1

Doors & Windows :-

- To be designed and constructed in accordance with the material used
- BS 7412: 2007, for PVCu units.
- BS 4873: 2009, for aluminium alloy units;
- Fixing of a doorset should be in accordance with recommendations given in section 8 of BS8213-4: 2007

Exterior Sliding Doors:- U-value of 1.4W/m²K

- New rear external Sliding doors to be aluminium, client to confirm colour. Doors to be from www.thefoldingslidingdoors.com or similar 70mm thk.

Doors & Windows :-

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- BS 7412: 2007, for PVCu units.
- BS 4873: 2009, for aluminium alloy units;
- Fixing of a doorset should be in accordance with recommendations given in section 8 of BS8213-4: 2007

Velux Window:- U-value of 1.4W/m²K

- 2No. Velux windows - 780x980mm. Client to confirm if to be used manually or electrically operated

Draught sealing / stripping

- Windows, Doors, Ceiling Hatches and Access Panels to be draught stripped.
- Window Seals to conform to BS 6375 rated to performance of windows and air infiltration. House entrance doors, windows and ceiling hatches to be fitted with external quality weather seals and draught stripping.

Kitchen :-

- Oven will comply with Building (Scotland) Regulations 2013 Part 3.11.2 whereby there will be provisions for an oven with the appropriate surrounding 1000x600mm activity space. The Oven will have incoming services to be gas or electric supply.
- Within the kitchen there will be a minimum storage space of 1m² to comply with Building (Scotland) Regulations 2013 Part 3.11.2

Smoke Detector :-

- To be interconnected in accordance with BS 5839:Part 6 : 2019
- To be installed to comply with the recommendations of BS5839:Part 1:2013 for a Grade D type LD3 system and Building (Scotland) Regulations 2013 Section 2.11.2. The system to be permanently wired to an independent circuit at the mains distribution board. Where two or more alarms installed in a dwelling they shall be interconnected.
- To be located 3m from any sleeping accommodation
- Located a min. 300mm away from any lighting
- Smoke alarm to be an Optical smoke Alarm suitable for kitchen open plans areas
- Heat Alarm to conform to BS 5446:Part 2:2003

Carbon Monoxide Detector :-

- To be installed to any room where a new combustible appliance is fitted to comply with Building (Scotland) Regulations 2013 3.20.2 excluding an appliance solely for cooking. Carbon monoxide detectors to comply with BS EN 50291-1:2010 and be powered by a battery designed to operate for the working life of the detector. Detector to be within 1-3m away from the appliance

Gas :-

- All work to be carried out in accordance with Building (Scotland) Regulations 2013 Parts 3.17, 3.18, 3.19, 3.20, 3.21 & 3.22
- The appliance, chimney's and flue's will meet the following BS and Building (Scotland) Regulations 2013
- BS 5440 Part 1 & 2 : 2000
- BS 5871 Part 2 & 3 : 1991 - As amended Part 3 and 7033
- All works to alter / extend existing internal gas supplies to be carried out by a Gas Safe Registered Installer
- Gas Fired appliances located within bathrooms to be installed to achieve compliance with Regulation 30 of the Gas Safety (Installation and use) Regulations 1998

Central Heating System :-

- New Radiators within proposed Extension to connect to existing heating system and have thermostatic valves (TRVs). (Contractor to inspect existing boiler to make sure it can supply new radiators)
- Client to confirm radiator positions to contractor.

Gas Boilers:-

- New boiler in an existing dwelling to be a condensing boiler with a min. energy rating of 90%
- New boiler to have boiler interlock and heater controls to comply with Building (Scotland) Regulations 2013 Parts 6.38
- Water supply to sanitary fittings to have a thermostatic mixing valve to prevent scalding and comply with Building (Scotland) Regulations 2013 Part 4.9.5
- Adequate ventilation to be provided to comply with Building (Scotland) Regulations 2013 Parts 3.17 to 3.22 and according to the manufacturers installation instructions
- The apartment is to have heating system capable of maintaining a temperature of 21°C in at least one apartment and 18°C elsewhere when the outside temperature is -1°C

Vent Pipes for Boilers:-

- Vent pipes from central heating boilers will be located to comply with Regulation P2.6 of the Building Standards (Scotland) Regulations 2013. Ventilation to Boiler are not to be taken through to adjacent wardrobe/ bedrooms. Note: Not to protected hallway

External Works:-

- Make good all external areas following completion of the works and re-grade ground as necessary to suit DPC levels.

General Roof Construction

- General Roof construction** - U-value of 0.11W/m²K
- Tiles to match existing colour / specification
 - Fixed on treated timber battens with
 - 50x38mm treated timber counter battens fixed to rafters.
 - Sarking to be 18mm exterior grade plywood, nailed to every truss at no less than 200mm centres using 3mmØx50mm galvanised round nails, joints to be staggered.
 - Covered with Tyvek supro membrane
 - Form junction to existing wall with 150mm upstand code 5 lead flashing
 - two storey Roof Pitch to match existing approx. 31°
 - 200mm timber soffit match existing
 - Proprietary fixing straps / roof anchors to manufacturer's written recommendations.
 - Roof to be ventilated at soffit using continuous 25x47mm Eaves soffit ventilator system capable of 25000mm² air space per metre & at ridge level using Redland proprietary ventilation systems.

Suspended Timber Floor Notes

Ground Floor Construction :- U-value of 0.15W/m²K

- Side Extension**
- Constructed from 22mm treated T&G moisture resistant chipboard flooring
 - 170x50mm treated timber joists at 600mm centres on
 - 170x50mm timber bearer fixed to existing wall using m12 Hilli bolts at 400c/s
 - Treated timber 100x32mm wall plate with
 - 170mm Kingspan K103 insulation between joists on battens or similar approved.
 - 150mm min. ventilated air space between base of joists and similar

Drainage

- Any New Drainage will be installed as per BS EN 12056-2: 2000 (Sanitary Pipework), BS EN 752-3: 1997 (amendment 2), BS EN 752-4: 1998 and BS EN 1610:1998 (For Drainage System outside a building), and BS EN 12056-3: 2000 (For Rainwater Pipes and Gutters), Drainage & Plumbing work to comply with Sections 3.5, 3.6 & 3.7 of the Building (Scotland) Regulations 2013

Electrical

- Electrical work will be carried out in accordance with the 18th edition of the I.E.E. including current amendments, together with the current BRITISH STANDARDS & CODES OF PRACTICE.
- The Building will be provided with electrical power in accordance with BS 7671: 2018
- Lighting and socket outlets are to be provided to comply with Building (Scotland) Regulations 2013 Parts 4.6.1, 4.6.2 & 4.6.4.

Contractor - Electrician /Client

- All electrical work to be carried out by a SELECT or NICEIC registered contractor and supply electrical certificate upon completion of works to building control
- Min socket requirements to be :- In the Kitchen - 6 sockets, in each apartment - 4 sockets and anywhere in the dwelling an additional 4 sockets
- Sockets to comply with 4.8.5 - whereby sockets must be a min. of 350mm from an internal corner and not more than 1.2m A.F.F.L. Also light switches should be positioned between 900 & 1100mm A.F.F.L.
- TV , BT & socket points to be positioned Min. 400mm A.F.F.L and 150mm above any worktop
- Client to confirm socket and lighting positions before commencement of works
- All light fittings within extension to be low energy type including lamps to comply with Building (Scotland) Regulations 2013 D6.5.1

Timber

- All timber used to be installed to BS5268.

Roof Trusses

- Trussed rafters to be designed and manufactured to BS268 Part 2 2002, Part 3 1998, BS6399 Part 1, Part 2 1997, Part 3 1998
- Contractor to supply truss design certificate upon completion of works

Leadwork

- All Leadwork to be in accordance with 'Leadsheet Association Recommendations' and to BS6915:2001

Windows - Safety Glazing -

- All glazing to conform to BS6262:Part 4 2018 and BS 6206 and the Building (Scotland) Regulations 2013 Parts 4.8.2, 4.8.3 & 4.8.4. All glazed openings to be safely cleanable from inside in accordance with BS8213 Part 1.
- All glazing as appropriate to be installed in accordance with BS6262: Part 4, 2005
- All apartments to have a min. glazed area of 1/15th of the floor area to comply with Building (Scotland) Regulations 2013 Part 3.16.1
- Window controls must be positioned not more than 1.5m above F.F.L.
- New windows to conform to BS6399 Part 1 1996 for pedestrian barrier protection to comply with Building (Scotland) Regulations 2013 DA.4.3
- New toilet / bathroom windows to have frosted / obscure glazing
- Guarding of windows should be designed and comply with Building (Scotland) Regulations 2013 4.8.4. so that it is not easily climbable by young children

Natural Ventilation

- Ventilation will comply with Building (Scotland) Regulations 2013 Parts 3.14 & conform to the BRE Digest or the table to this specification
- The rooms will be ventilated to min. 1/30th of the floor area it serves by trickle ventilators above all windows & patio doors.
- Natural Ventilation to comply with CIBSE Guide A:1986, Design Data, Section A4, Air Infiltration and natural ventilation.
- All apartments to have permanent ventilators built into head of frames to comply with 3.14.2
- Apartments to have ventilators capable of 12000mm³
- All other rooms to have ventilators capable of 10000mm³

Mechanical Ventilation:-

- Mechanical Ventilation to be carried out in accordance with the BS5720: 1979 or CIBSE Guide B: 1996, Section B2 and Natural Ventilation to comply with CIBSE Guide A:1986, Design Data, Section A4, Air Infiltration and natural ventilation.
- Provide the mechanical / natural ventilation to the following rooms from Ventaxia or similar approved :-
- Utility Room :- Mechanical extraction capable of 60litres/sec - min. 4000mm³
- En-Suite & Toilet :- Mechanical extraction capable of 15litres/sec min.4000mm³
- Kitchen :- Mechanical extraction capable of 60litres/sec - min. 4000mm³

Fans

- The fan outlets are to be ducted through the outside wall as indicated on the proposed floor plans. All external fans to be provided with vermin control covers.

Drainage:-

- New drainage required to :-
- Shower Room:-
- 1) WC - 100mmØ PVC Waste pipe
- 2) WHB - 40mmØ PVC Waste pipe
- 3) Shower - 50mmØ PVC Waste pipe

Utility Room :-

- Sink connection & connection taps for washing machine, dishwasher

Kitchen :-

- 1) Sink - 40mm Ø PVC Waste pipe connected to existing sink waste pipe

Wash-Hand Basins -

- 32mm dia UPVC un-vented branch pipe (with anti-siphonic waste traps) at a gradient to suit length of waste pipe, up to maximum length of 1.7 metres.
- (0.50 metres = 1:11 gradient);(0.75 metres = 1:12 gradient);
- (1.00 metres = 1:20 gradient);(1.25 metres = 1:30 gradient);
- (1.50 metres = 1:40 gradient);(1.75 metres = 1:50 gradient).
- 40mm dia UPVC un-vented branch pipe (with anti-siphonic waste traps) @ gradient of 1:20 (1:20min - 1:11max), up to maximum length of 3.0 metres.]

Kitchen Sinks / Showers -

- 50mm dia UPVC un-vented branch pipe (with anti-siphonic waste traps) @ gradient of 1:40 (1:40min - 1:11max), up to maximum length of 4.0 metres.

W.C.

- 100mm dia UPVC un-vented branch pipe (with anti-siphonic waste traps) @ gradient of 1:40 (1:60min - 1:11max), up to maximum length of 6.0 metres or 12.0 metres if more than one W.C. is connected.

- Water efficiency fittings should be provided to all WCs and WHBs within a dwelling to comply with standard 3.27.1 & 3.27.2
- i.e. Dual flush WC systems should have an average flush volume of not more than 4.5 litres. Single flush WC systems should have a flush volume of not more than 4.5 litres. Taps serving wash or hand rinse basins should have a flow rate of not more than 6 litres per minute.

- New foundations to be stepped below existing drainage
- Where underground drains pass through under-building / solium walls, an opening should be formed to allow at least 100mm thick pea-gravel around the drain, including a new 65mm thick pre-stressed lintel over.
- All new drainage as indicated internally is to be installed in heat resistant UPVC by Marley or equally approved.
- All internal wastes to be installed to manufacturers instructions and recommendations trapped and connected separately to S.V.P.
- All new underground drains to be 110mmØ Upvc pipes
- Proposed 100mm UPVC RWP's to be trapped and connect to existing RWP.
- All pipes laid on 150mm well compacted granular material, side fill to be granular material well compacted to half the pipe depth, and top fill in granular material well compacted in 100mm layers, to 400mm above the pipe crown.
- All pipework above ground will be UPVC. The connection between fireclay and UPVC pipework to be by a suitable proprietary connector.
- All stacks and stub stacks (below ground) will be 100mmØ Upvc, and include a min. 200mm radius bent at the foot, and have a distance from lowest branch to invert of drain not less than 450mm (in the case of a stub stack, the distance from the lowest branch of any other appliance to invert of drain will not exceed 2500mm)
- Where any pipe passes through the polythene DPM, the DPM to be fitted with a sealed collar, lapped up and sealed to the pipe at the top of the ground floor slab and to the DPM.

Wet Areas:-

- All wet areas - Shower, Whb's, Sink etc. to be tiled to prevent water infiltration to plasterboard. Tiles to be confirmed by client.

Existing Walls:- Alterations.

- Any alteration works to be carefully carried out to match / complement existing walls.

Two storey side extension

- **Solum Construction**
- Base to be 150mm thick hardcore,
- 50mm well blinded sand
- 1200 Visqueen DPM on top lapped up into DPC
- 90mm concrete screed on top.

Foundation Construction

- Concrete foundation to be 600x200mm foundation pad c/w 1 layer of A252 mesh
- The proposed foundations will be the same type as the existing and taken to the same depth or a minimum of 450mm below ground level. Whichever is greater. Foundations to be stepped to reach different ground levels
- Movement joint to be installed between existing and new foundations and walls in accordance with regulation Structure 1.C.5.
- Proposed foundations to lap over existing foundations by a distance of 300mm plus existing sarcement with an overall thickness of 200mm plus the foundation thickness of 200mm. Alternatively 4No. 20mm diameter dowel bars 400mm long to be resin grouted 200mm into existing foundations
- If when the existing foundations are exposed they comprise of a non standard design, works must cease and building standards must be contacted
- Building standards to be contacted and given the opportunity to inspect foundation trenches prior to pouring concrete

DPC's

- DPC's also to be provided at all construction joints, under all wall plates, at stepped cavity tray, all cavity barriers and behind all pre-cast concrete cills and lintels and thresholds to comply with Section 3.10.0 Precipitation of the Building (Scotland) Regulations 2013. DPC to be stepped where required to maintain a min. 150mm A.G.L.

Vapour Control Membranes

- Vapour membranes to be overlapped at junctions by 150mm min and bonded with mastic strip and sealed with jointing tape in accordance with manufacturers written instructions. Dry lining junctions between walls, ceilings, floors, around window/door openings to be sealed.

General Construction Information :-

- All wall construction to dwelling to comply Section 6.0.3/6.0.4 Thermal Conductivity of the Building (Scotland) Regulations 2013
- All concrete to be class C35min.
- No high alumina cement to be used.
- All brickwork to be a minimum course strength of 21N/m in class (ii) mortar brickwork to be 'Frost free'.
- Wall ties to be min. class (ii) at max 600mm c/c horizontally and 450mm vertically. Ties to be stainless steel. Ties every 3rd course. Wall ties to be 'BT-2' stainless Steel ties by Catnic or equal and approved @ 600mm c/s.
- Wall ties to be max 300mm apart vertically and within a distance of 225mm from the vertical edges where the aperture has been formed
- New brickwork to be fixed to existing structure using galvanised steel connector Wall Starter by Catnic or similar approved
- Anchors to be Vertical V-Type