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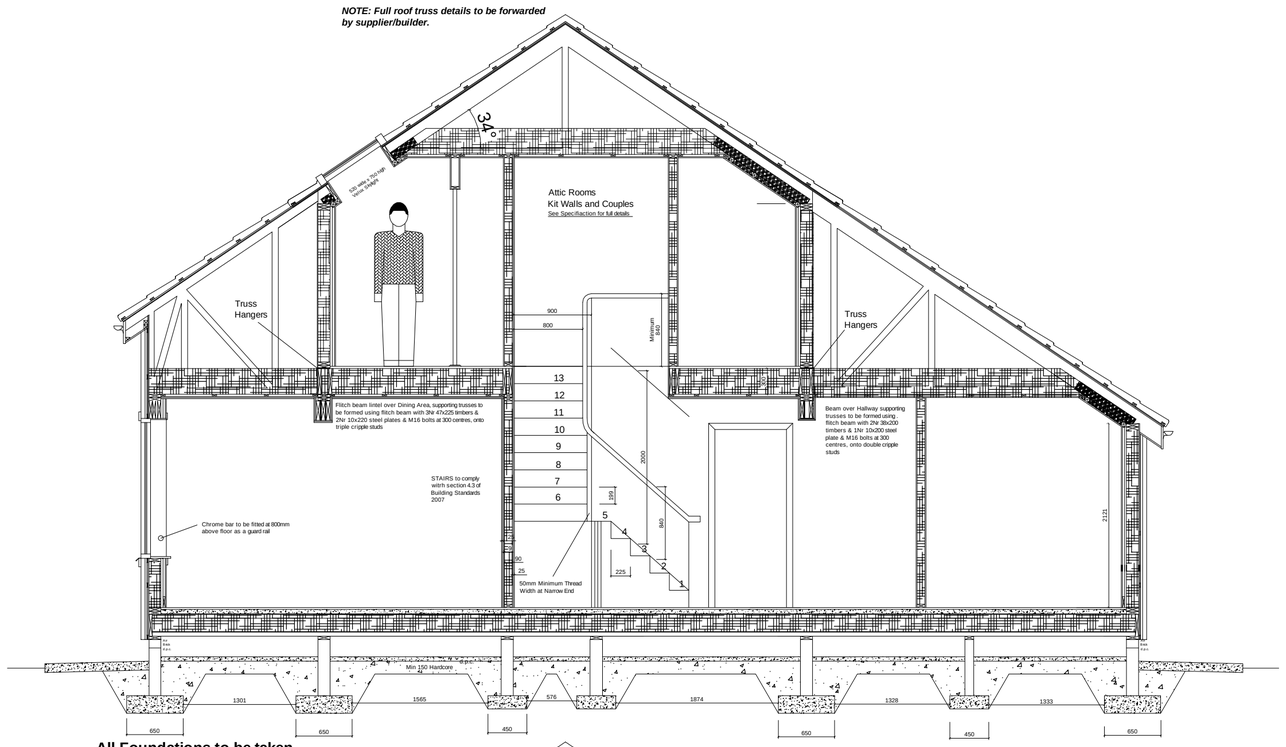
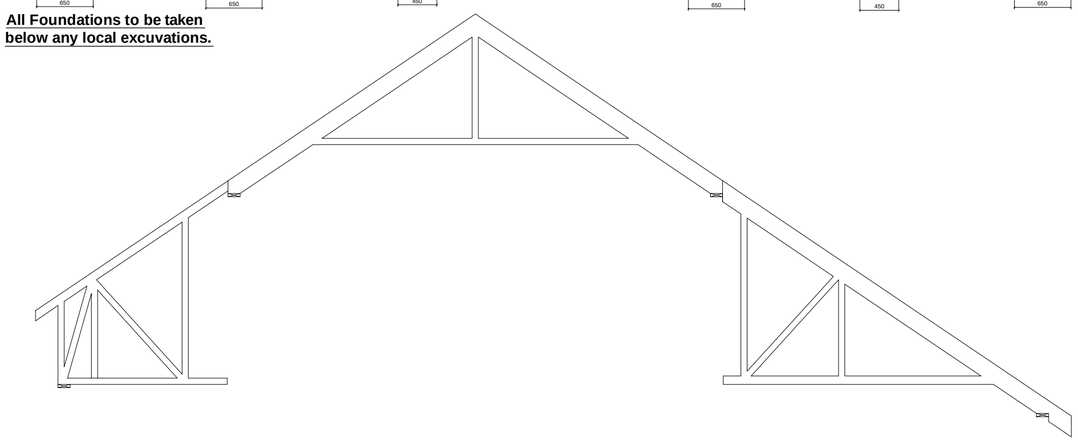


All Foundations to be taken below any local excavations.



All work must be carried out in accordance with the Building (Scotland) Regulations 2004.

General
* The buildings fabric must be so constructed as to minimise the thermal bridges and gaps in the insulation layer. All areas where kit sections meet/join must be sealed with mastic prior to applying Corvin breather membrane, as detailed below.
* Infiltration of air into the dwelling should be limited, design and build to 'Accredited Construction Details (Scotland)'.

Kit Frame Lintels

* Lintels for Windows and Doors up to 1200mm on perimeter walls to be formed using 2no. 200mm x 38mm C24 timber spiked together. On to single cripple stud supports.
* Lintels for Windows and Doors up to 1800mm on perimeter walls to be formed using 3no. 200mm x 38mm C24 timber spiked together. On to double cripple stud supports.
* Up to 2.4m - fliitch beam with 2Nr 38mm x 200mm timbers & 1Nr 10mm x 200mm steel plate & M16 bolts at 300 centres, onto double cripple studs
* Up to 3.6m - fliitch beam with 3Nr 47mm x 225mm timbers & 2Nr 10mm x 220mm steel plates & M16 bolts at 300 centres, onto triple cripple studs
* 3.3m Dining Room Window - fliitch beam as above for 'Up to 2.4m'

Nailing Schedule (Minimum)

*** Ground Floor Joists:** Ground Floor Joists to be cheek nailed with 2No 90 x 10swg nails to wallplate. End joists and header joists to be cheek nailed to wallplate at minimum 300mm centres with 90 x 10swg nails. Header joists to be fixed to main joists with 2No 90 x 10swg nails at 150mm centres.
*** Wallplate:** Galvanised 90 x 10 swg nails at 400mm centres.
*** Ground Floor Platform:** Chipboard flooring nailed to joists with 50 x 12 swg ring shank nails at 250mm centres around perimeter, 75 x 9swg nails at 150mm centres
*** Wallframes:** Frames nailed together with 100 x 9swg nails, 2No per stud each end. Pnumatic staples through 9mm plywood at 150mm centres at edges and 300mm centres along intermediate studs.
*** Ground Floor Wall Frames:** Sole plate of the frames to be nailed into joists with 3No 100 x 7swg nails per stud bay. Each frame where applicable to be nailed with 5No 90 x 10 swg nails spaced over the height of the frames. Headbinder to be more than 1000mm from joists in frames.
*** First Floor Joists:** First Floor joists to be cheek nailed with 2 No 90 x 10swg nails to the Wallplate. End joists and header joists to be cheek nailed to wallplate at 300mm centres with 90 x 10 swg nails. Header joists to be fixed to main joists with 2No 90 x 10 swg nails at 150mm centres.
*** First Floor Plateform:** Chipboard flooring nailed to joists with 50 x 12swg ring shank nails at 250mm centres around perimeter, 75 x 9swg nails at 150mm centres.
*** Roof to Frames:** Roof fixed to frames with propriatory truss clips and fixings at end of each truss and elsewhere as specified by truss manafacturer.

Suspended Timber Floor Construction - See Sketch
* Installed and nailed to manufacturers instructions, but shall be not less than:
* Perimeter framing 150-300mm, minimum distance from edge 8mm
* Intermediate framing 300mm, minimum distance from edge 8mm
* 22mm V313 moisture resistant tongue and groove chipboard flooring.
* Chipboard flooring to comply with:
  * Service class 1: EN 636-1 (ply); EN 312 P4 (Particleboard); EN 300 OSB/2 (OSB)
  * Service class 2: EN 636-2 (ply); EN 312 P5 (Particleboard); EN 300 OSB/3 (OSB)
* On 50mm x 50mm SW at 400mm centres
* 50mm sand and cement screed, containing Wirsbo Underfloor heating pipes.
* Sand and cement screed mixed and laid in strict accordance with Wirsbo instructions
* on 9mm chipboard
* Wirsbo piping and manifold laid and installed in strict accordance with manafacturers instructions
* On 250mm Silent Floor TJI Joists Wood I-Beam™ Joists (with 'Fibre Strong'® OSB Web and G-P Lam® LVL Flanges) at 400mm centres.
  * Supporting 9mm Chipboard,
  * Supporting 200mm Glasswool Insulation, cut and trimmed to neatly fit between TJI Joists
* Any floor joists spanning more than 2.5 metres must be provided with a row of strutting at the mid span.
* On 150-100 x 25mm treated softwood wall plate.
* Full details, specification and installation instructions available at ***http://www.uponorhousingsolutions.co.uk/literature/literature.aspx?mid=2_13#6_Technical***

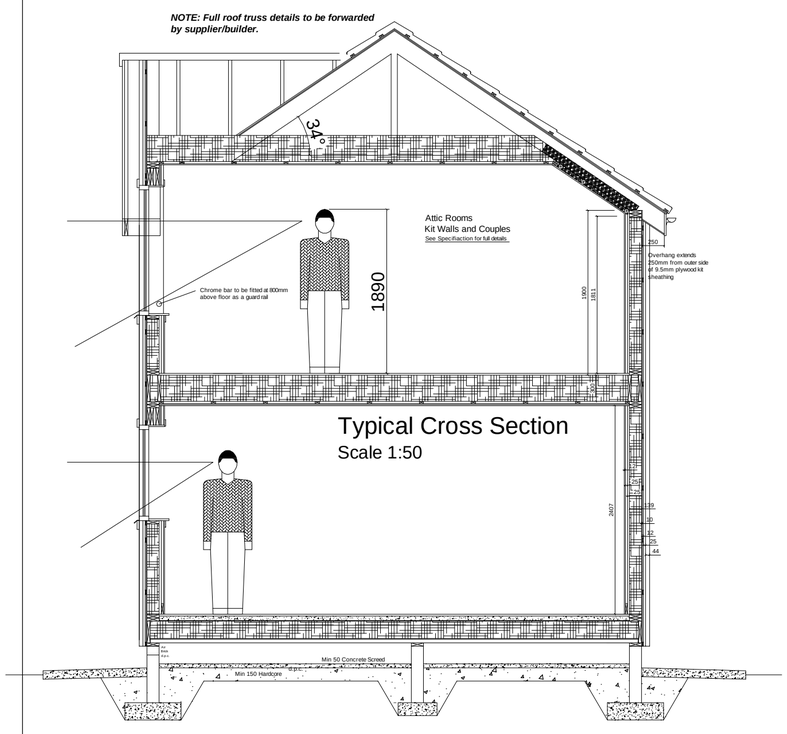
Kit Frame Wall Construction
* Sterling Board nailed to Timber Kit (External Walls and Load bearing partitions) 150mm c/c Perimeter; 300mm c/c Internally
* 138x38mm Softwood perimeter kit location plate.
* 138x38mm CLS kit panel with standards at 600mm centres.
* 138x38mm continuous overhead binder.
* Multiple studs to be inserted within panels where required to support multiple trusses.
* If bearing on an external lintel, the external lintel support studs must be sized accordingly.
* Panels clad with 9.5mm conditioned Sterling board sheathing.
* Covered with Corovin breather membrane.
* All kit joints to be sealed with silicone mastic.
* All gaps between floor and external walls to be sealed with polyurethane expanding foam sealer.
* DPC trays to be fitted at horizontal cavity barriers/closes over window openings and at intersection of upper floor level across gables.
* Wall panels to be secured to substructure with min 1200mm long galvanised tie down straps at 1200mm centres.
* 150mm fibreglass insulation and 12.5mm Duplex plasterboard to all external walls.
* Insulation used to be of acceptable type and corresponding thickness so that all surfaces exceed minimum 'U' values.

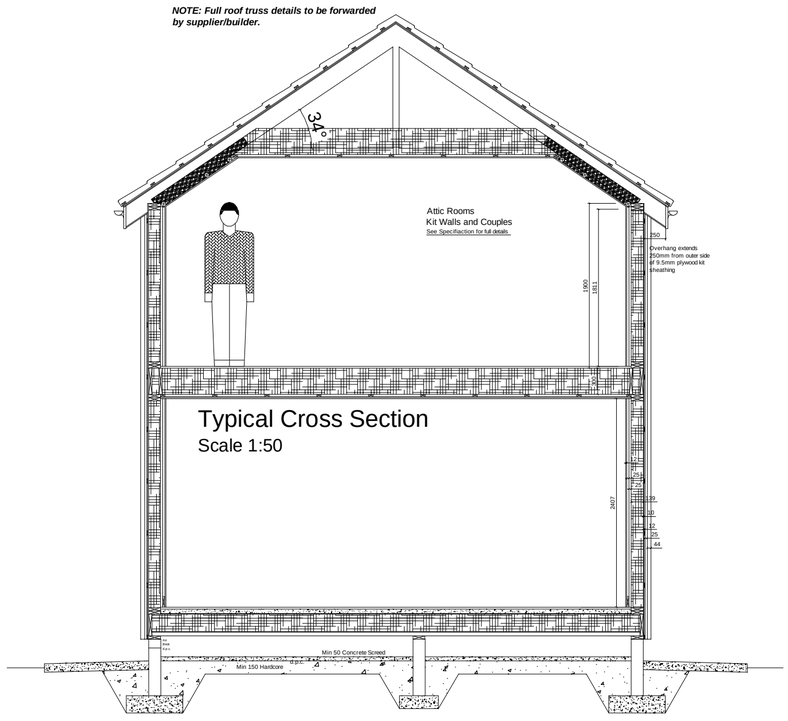
Timber Cladding
* 145x22mmSoftwood horizontal shiplap cladding.
* On 50x25mm Softwood vertical purlins at 600mm centres.
* On 50x12mm Softwood horizontal purlins at 600 centres to allow min 10mm free air space cavity ventilation as per 3.10.6 of SBS Technical Handbook (Domestic)
* 140x22mm and 90x22mm Softwood cover boards to windows doors and corners.
* Stainless steel mesh fitted at dpc level around perimeter as vermin barrier.

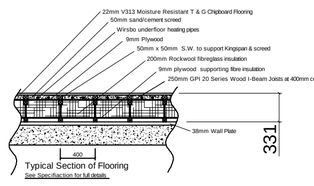
Soffits/Eaves/Fascia
* 63x38mm Soffit board framing.
* 13x145 uPVC soffit boarding.
* 195x27mm uPVC facia boarding.
* 9.5mm uPVC soffits.
* 10mm continuous soffit vents or equivalent Circular plastic vents at 1200 centres.
* All to be covered by uPVC boards.

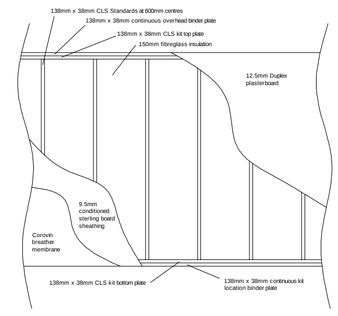
Firestops
* 50 x 25mm Softwood firestop to be fitted:
* Around perimeter at soffit level.
* Around all window and door openings.
* Vertical at maximum 10m centres.
* 2 Layers of plasterboard, tapered and plastered to ground floor ceiling and loadbearing partitions - minimum 30 minute fire protection

Internal Partitions
* Load bearing partitions to be 90x38mm C16 CLS with standards at 600mm centres.
* Clad on one side with 9mm OSB, 67x45mm (Loadbearing only)
* 90x38mm C16 CLS Partitions with standards at 600mm centres.
* Twice dwanged at 800mm and 1600mm heights.
* All partitions clad both sides with 12.5mm plain plasterboard.
* 80mm Fibreglass insulation to bathroom/toilet partitions - And, elsewhere as indicated on plan.
* Sound Insulation to be provided to toilets, bathrooms and en-suites.
* 2 Layers of plasterboard, tapered and plastered to ground floor ceiling and loadbearing partitions - minimum 30 minute fire protection



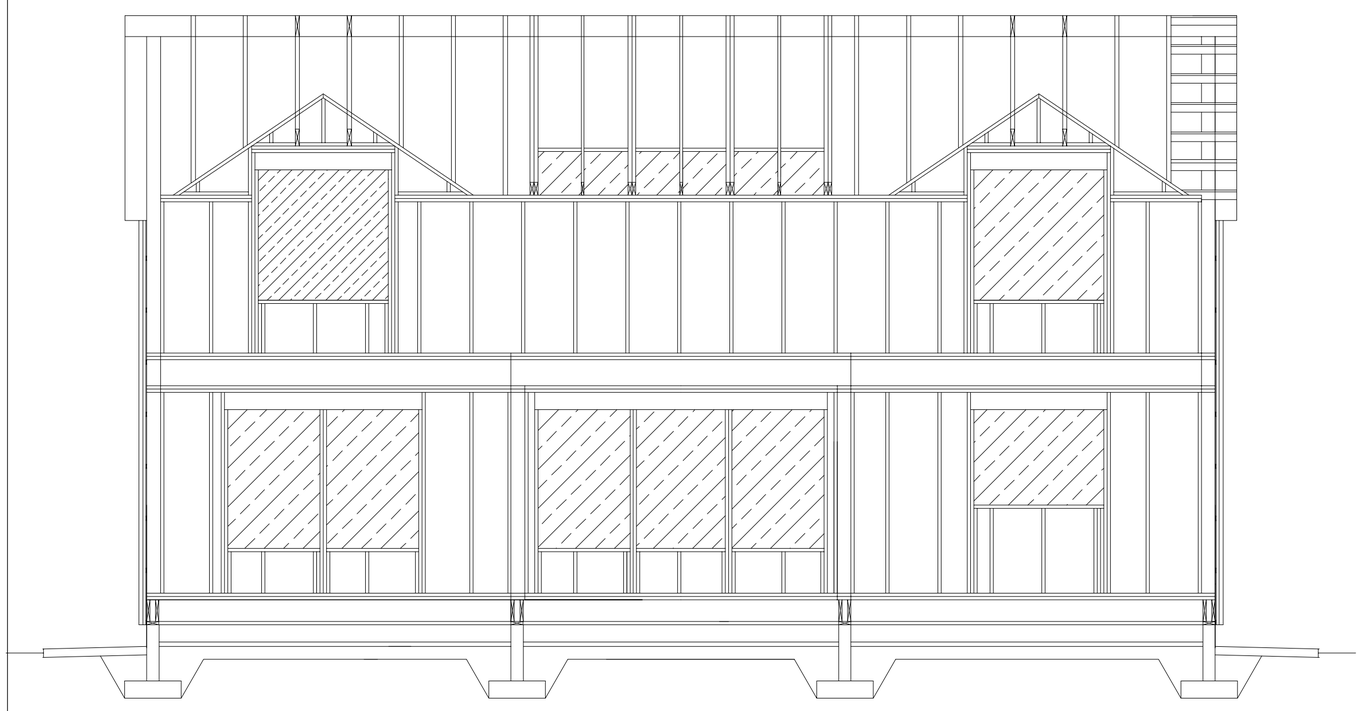






NOTE: Full roof truss details to be forwarded by supplier/builder.

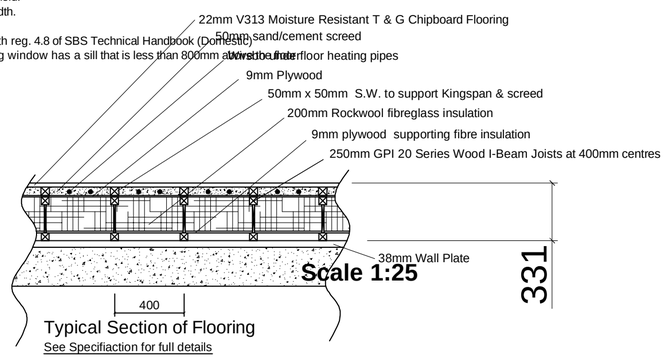
All windows to be 'escape' design.
Full specification for windows to be forwarded by supplier/builder. Minimum of one pane opening per window.



First Floor Kit Frame Wall Construction
* Sterling Board nailed to Timber Kit (External Walls and Load bearing partitions) 150mm c/c Perimeter; 300mm c/c Internally
* 138x38mm Softwood perimeter kit location plate, fitted to upper side of Pasquill Flooring.
* 138x38mm CLS kit panel with standards at 600mm centres.
* 138x38mm continuous overhead binder.
* Multiple studs to be inserted within panels where required to support multiple trusses.
* If bearing on an external lintel, the external lintel support studs must be sized accordingly.
* Panels clad with 9.5mm conditioned Sterling board sheathing.
* All kit joints to be sealed with silicone mastic.
* All gaps between floor and external walls to be sealed with polyurethane expanding foam sealer.
* Wall panels to be secured to Pasquill Attic Floor and First Floor Kit with min 1200mm long galvanised tie down straps at 1200mm centres.
* 150mm fibreglass insulation and 12.5mm Duplex plasterboard to all external walls.
* Insulation used to be of acceptable type and corresponding thickness so that all surfaces exceed minimum 'U' values.

Truss/Roof/Tiling
* Gangnail type (approved) prefabricated attic trusses by specialist manufacturer designed and installed to BS 5268 Part 3 at maximum of 600mm centres.
* But in all cases, trusses shall be installed in strict accordance with designers instructions and specification.
* Roof Bracing must be installed in accordance with BS5268 Part 3 1998
* Roof truss design certificate and details to be submitted to Building Control when available.
* Full design details to be included in submission to Building Control - including, but not limited to, details of all methods of joining, attic and 'standard' fink trusses - All to be supplied by specialist certified Gangnail Design Bureau.
* Trusses to be securely tied to kit standards by Simpson Strong Tie LTS18 tie down straps at maximum 1200mm centres.
* Trusses fixed to wall head using 3-way truss clips at all other trusses.
* 100mm x 50mm softwood Longitudinal and diagonal bracing,
* 9.5mm Conditioned Sterling board sarking.
* Polytex/Multivap 300 breathable roof membrane.
* 50x25mm Softwood counter battens.
* 50x25mm Softwood tile battens.
* Ubink EPS - Eaves Protection System.
* Valleys to be flashed with Dovetail VAL400 GRP valley trough.
* Redland Grovebury interlocking concrete roof tiles each tile clipped, nailed and screwed.
* Redvent ventilated dry ridge system.
* Ubink comb eaves filler to be fitted to permit continuous ventilation between underside of roof tiles and roof membrane.
* 50mm air gap to be maintained over insulation at eaves.
* Insulated with 100mm Glass Wool insulation on 100mm High Density 'Kingspan' Insulation between joists on 12.5 Plasterboard.
* First Floor to be constructed in strict accordance to Pasquill design, JJI Joists at specified centres, principally 600mm and 400, but in all cases as per design.
* Designed in accordance with BS 5268: Part 2
* 300mm Glass wool insulation between ground and first floor
* 300mm Glass wool insulation over attic ceiling
* 100mm Thermopitch TP100 between trusses at coomb, maintaining minimum 10mm air gap ventilation between insulation andunderside of roofing ply
* 50mm Thermopitch TP100 horizontally between 50x50mm horizontal strapping at coomb to prevent cold bridging from trusses. 100mm and 50mm Thermopitch to be fitted neatly together
* On 12.5 Duplex plasterboard
* Noggings and dwangs as specified by Pasquill

Doors and Windows
* Minimum unobstructed openings to comply with regulations.
* High Level Thermal Insulation double safety glazed to 1.4 W/m2K. Target U-Value is 2.55, this is achievable by 50% glazed panel within a redwood door structure, DG(low-E hard coat e = 0.2) 16mm or more gap(s)
* Horizontal and vertical d.p.c. to all window and door openings.
* All door or associated screen or window glazing to be High Level Thermal Insulation double glazed to 146 W/m2K.
* Glazing below 1500mm from floor level, to be safety glazing.
* All gaps around windows and doors between frames and wall panels to be sealed with polyurethane expanding foam sealer.
* Standard 'Velux' skylights. 'Velux' glazing of 'Thermo-Star' TM, Strength - Low Energy, 4mm float glass with coating, 16mm gas filled cavity, 4mm tempered glass Ug=1.2WMK
* Velux skylights fitted in strict accordance with manufacturer's instructions - Trusses to be designed by accredited truss manufacturer, such that skylights can be accommodated as per plan.
* An openable window or rooflight, that provides natural ventilation to meet standard 3.14, should have controls for opening that will allow both safe and convenient usage. All such windows must be specified and installed to comply with this standard
* Norges to turn 'severe exposure' 100% weatherstripped, 'high performance' fully reversible H System windows.
* Full specification for windows to be forwarded by supplier/builder.
* Fitted with 6000mm square trickle vents.
* All opening windows to be fitted with safety catches.
* All windows within 300mm from sides of doors and within 1500mm from floor level to be fitted with safety glass.
* Windows below 800mm from floor level to be fitted with safety glass - conforming BS 6262.
* Windows adjacent to Platt and Ramps (or other access routes) must be fitted with casement restrictors.
* Where accidental collision is likely, glazing must be constructed and installed to minimise the risk of personal injury.
* Skipper high performance exterior door sets and screen.
* Entrance door to be fitted with low-level wheelchair threshold.
* Internal doors to be minimum of 775mm clear opening width.
* External minimum 800mm.
* All windows to be so desgined such that they comply with reg. 4.8 of SBS Technical Handbook (Domestic)
* Protective barriers should be installed where the opening window has a sill that is less than 800mm above the floor.



Client Details
Mr and Mrs R Munro

Title
Proposed Dwelling House

Description
Sections and Kit

David Polson
Scarpas,
North Voxter,
Cunningsburgh,
Shetland ZE2 9HF

Scale
Sections and Kit 1:50

Drawn By

Drg No./File Name

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Date

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