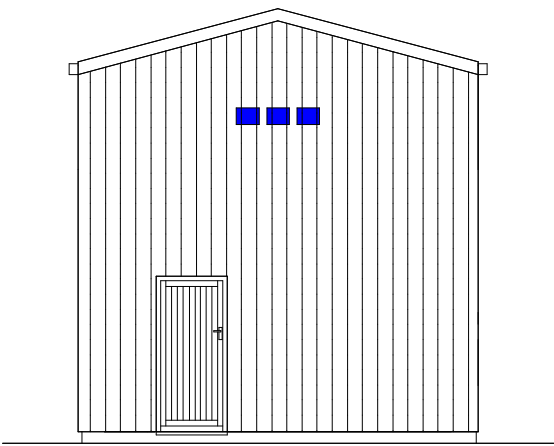
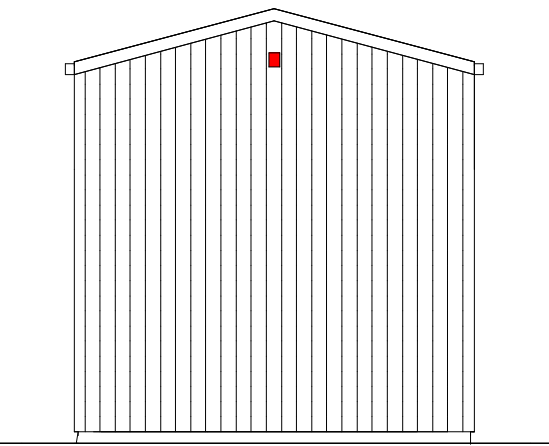
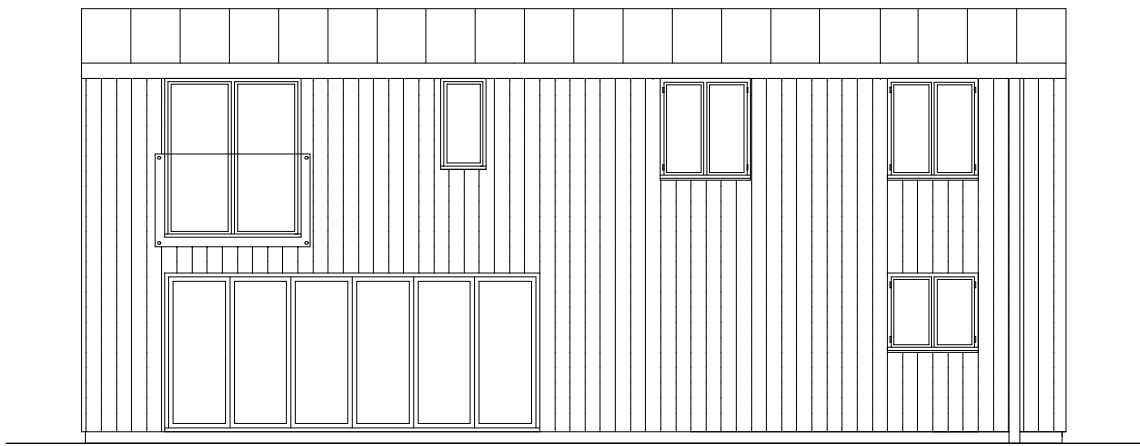




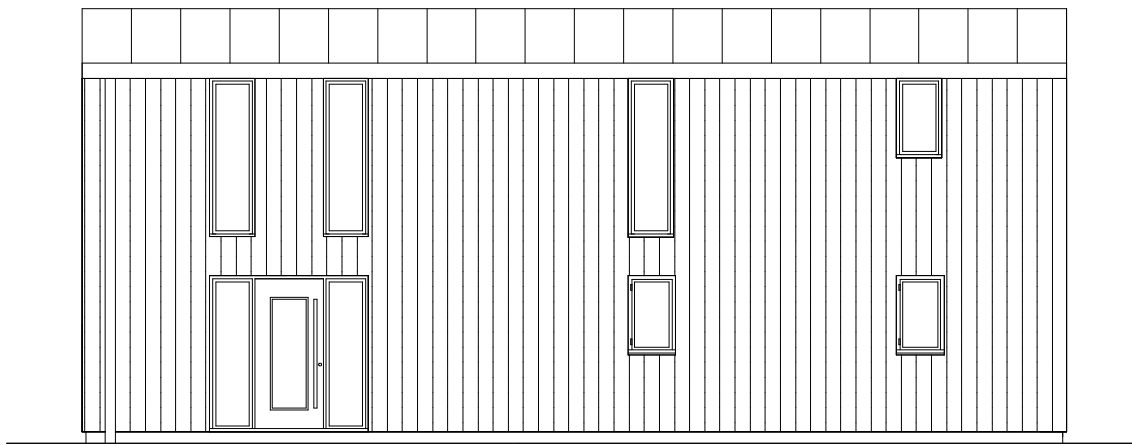
END ELEVATION - east



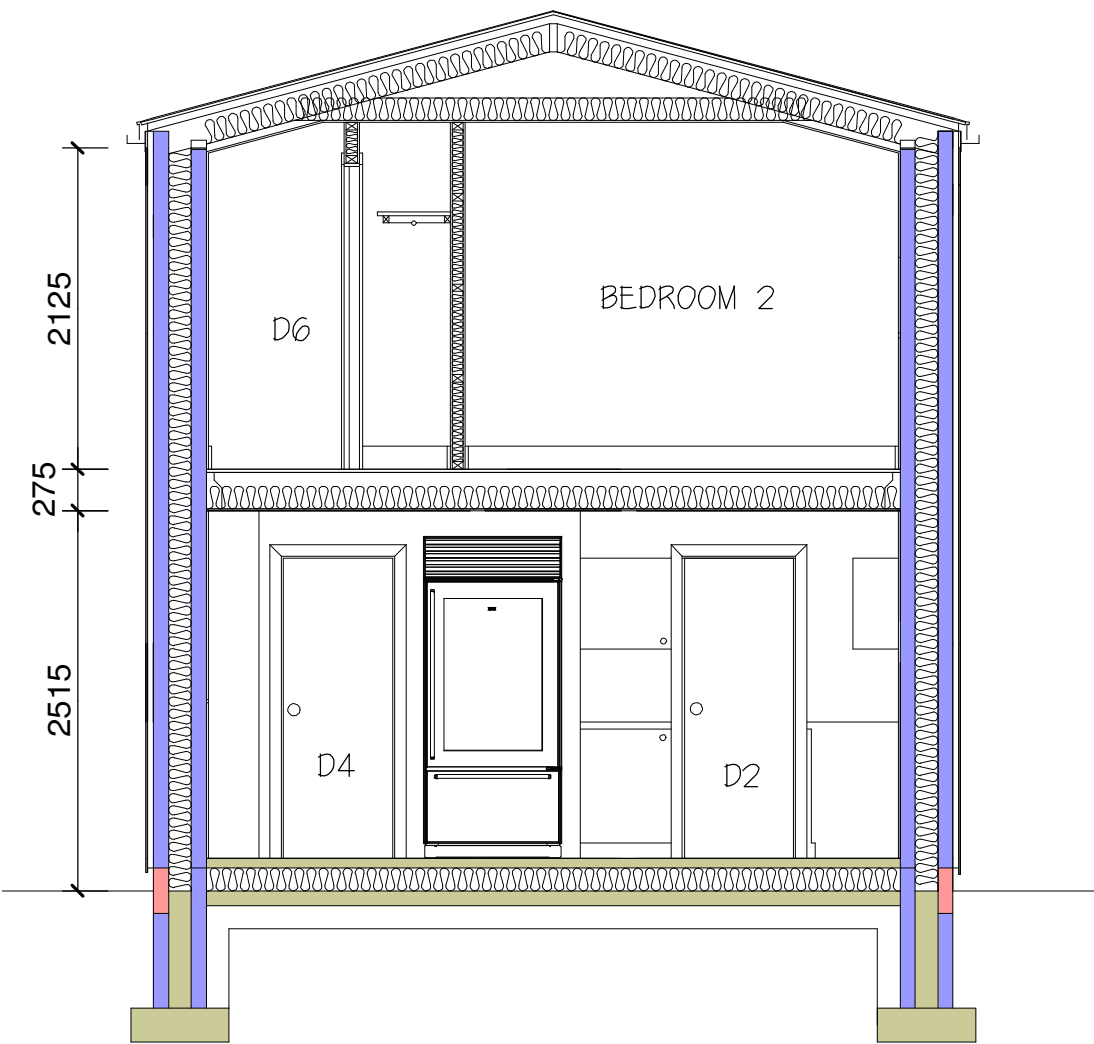
END ELEVATION - west



REAR ELEVATION - south

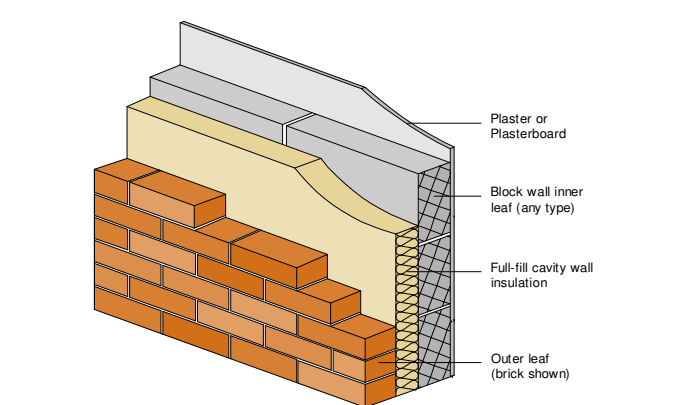


FRONT ELEVATION - north



GENERAL SECTION

3.00 Introduction



The Robust Details shown here have been developed for a range of fully filled cavity wall constructions. For this form of construction, details are given for the junctions with a range of roof, ground floor and internal floor types, in addition to details around window openings etc.

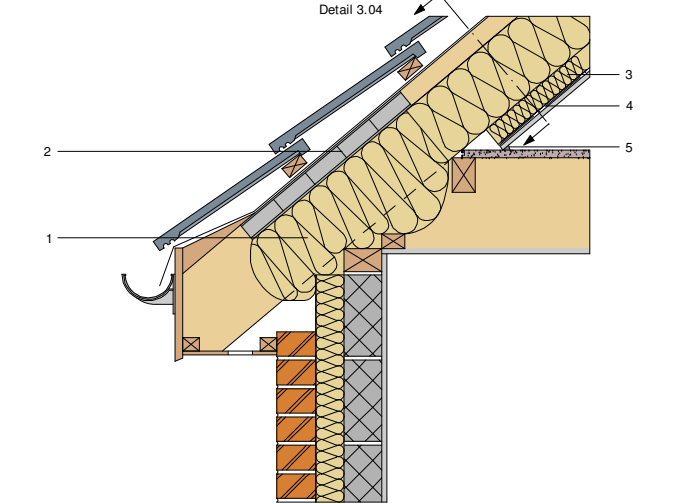
Details which apply to all wall types and junctions are included in section 8: "General Arrangements". There are many types of insulating materials and masonry products and the details have been assessed for any combination of insulation and masonry type which meets the calculated U-values given in section 3.2.3. Unless otherwise stated on the particular detail, any type of suitable block or thermal insulation material can be used provided they are suitable for their intended purpose.

Insulation thicknesses for main building elements have not generally been provided as these depend on the thermal properties of the materials chosen, together with the proposed U-value which they may or may not achieve. The thermal properties of the materials chosen, together with the proposed U-value which they may or may not achieve, should be checked with the manufacturer of the material. The details are shown with a brick outer leaf for simplification. However, other types of masonry materials may be used as a substitution, without any loss of thermal performance or increased thermal risk, such as blockwork with render, 100mm or 150mm thick, or other masonry products. The details are shown with a brick outer leaf for simplification. However, other types of masonry materials may be used as a substitution, without any loss of thermal performance or increased thermal risk, such as blockwork with render, 100mm or 150mm thick, or other masonry products. The details are shown with a brick outer leaf for simplification. However, other types of masonry materials may be used as a substitution, without any loss of thermal performance or increased thermal risk, such as blockwork with render, 100mm or 150mm thick, or other masonry products.

Masonry: Cavity Wall Insulation: Full-Fill

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3.03 Pitched roof. Ventilated rafter void. Eaves



Notes:

1. Tightly pack any gaps between wall insulation and roof insulation with mineral wool (or similar) to limit air leakage.
2. Use suitable cross flow ventilator and maintain 50mm (min) ventilation path over insulation.
3. Secondary insulation (wing to top of eaves) is required to achieve U values.
4. Vapour control layer behind plasterboard.
5. Seal gap between floor and sloping ceiling.

Fire stopping may be required with some wall insulation materials.

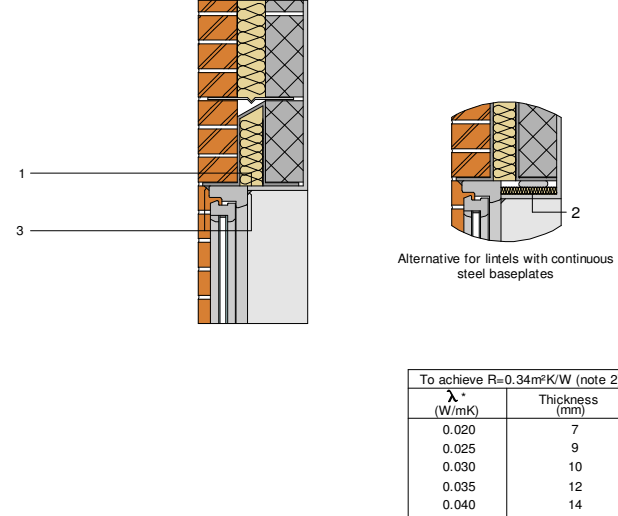
This detail is also suitable for mansard roofs subject to suitable ventilation provision.

This detail should be read in conjunction with detail 3.04.

Masonry: Cavity Wall Insulation: Full-Fill

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3.10 Windows and doors. Folded lintel.



Notes:

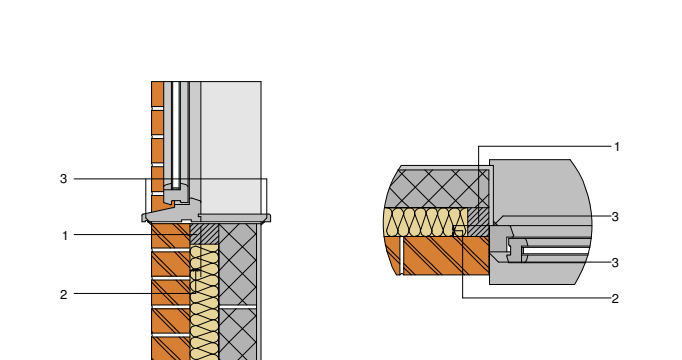
1. No baseplate or perforated baseplate with effective conductivity not exceeding 300W/mK (manufacturer's certified data).
2. For bricks with continuous solid steel baseplates, soffits should be lined with insulation of minimum R value of 0.34m²/K/W (see table intermediate provision for folds ventilation may be required).
3. Sealant to front and back of frame.

Separate cavity trays may be required depending on exposure and lintel specification.

Masonry: Cavity Wall Insulation: Full-Fill

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3.12 Windows and doors. Jamb and sills.



Notes:

1. Proprietary closer with minimum thermal resistance path of 0.45m²/K/W (manufacturer's certified data).
2. Minimum frame/door overlap: 10mm (see table intermediate provision for folds ventilation may be required).
3. Sealant to front and back of jamb/sill.

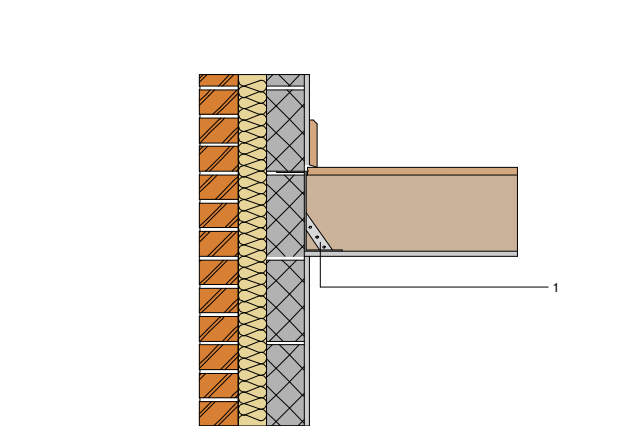
The use of closures, minimum overlaps and sealants also apply to junctions between external walls and bay windows/cornerstones.

For level threshold details see section 8: "General Arrangements".

Masonry: Cavity Wall Insulation: Full-Fill

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3.22 Timber intermediate floor.



Notes:

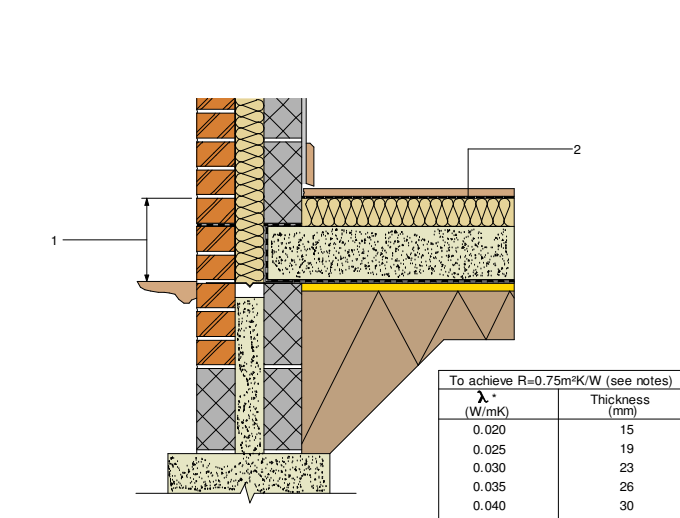
1. Timber joists should be supported using joist hangers.
2. Joist and joist hangers should be supported in the wall BPE (Over Building Guide 21: Joist hanger).
3. Separating compartment floor requires additional floor/compartment to meet acoustic and the safety requirements.

Subflooring may be built up to keep the wall insulation layer is not broken. The battens/supports may be fixed back through the insulation so long as any penetrations are sealed.

Masonry: Cavity Wall Insulation: Full-Fill

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3.16 In-situ suspended ground floor slab. Insulation above slab.



Notes:

1. Continue wall insulation at least 150mm below top of floor insulation (or perimeter insulation where screed is used) and support on a row of ties.
2. Vapour control layer under timber floor joists.

Any screed must have an edge insulation with minimum R value of 0.75m²/K/W (not shown) - see table.

Masonry: Cavity Wall Insulation: Full-Fill

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8.01 Air Leakage.

Many of the details shown in this document contain measures designed to reduce air leakage. The individual air leakage measures will depend on the form of construction and level of workmanship but the objective is to form a definable, continuous air leakage barrier around the dwelling. Ways of preventing air leakage should then be considered at every penetration of this barrier.

Particular care on site should be paid to:

- Joints between structural components e.g. wall to floors.
- Joints around components and opening within walls.
- Services penetrations - plumbing, electrical, and ventilation.

General:

- Close any vertical ducts at top and bottom (e.g. boxing in to DVPs).
- Seal any service penetrations.
- Select the appropriate sealant or gap filler for the size of gap and degree of movement anticipated.

Masonry Construction:

- Ensure continuous ribbons of adhesive are used to fix to dry lining at perimeters of external walls, openings, and services on external walls as shown (right). The importance of correct sealing of dry lining on slab needs to be stressed, as this is a key area of air infiltration and can seriously affect the overall ventilation rate.
- Use joist hangers to support floor joists.
- Seal under skirting boards where dry lining is used, or on suspended floors.

Timber Frame:

- Ensure DVPs are turned up behind sole plates and lap with vapour control layers (alternating seal with mastic or a gasket between the DVPs and sole plate).
- Place head of mastic on timber floor deck before positioning wall panels (timber ground floors and intermediate floors).
- Ensure a sheet vapour control layer is properly lapped at junctions, and/or.
- Ensure any vapour control plasterboard is jointed in accordance with manufacturer's instructions.
- Always return vapour control layers into door and window reveals, heads and sills.
- Cut vapour control layers tight to electrical outlets and seal at piped service penetrations, (with tape or mastic as appropriate).
- Ensure all breather control membranes overlap each other and are stapled in place.

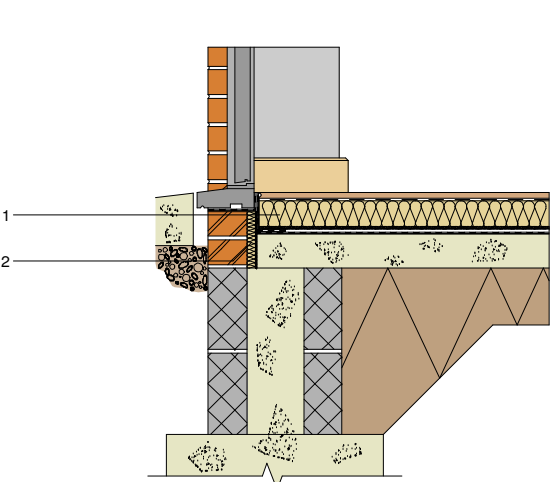
Steel Frame:

- All joints between rigid insulation boards should be lapped or sealed with tape approved by insulation manufacturer.
- Additional items where hybrid construction is used:
- Ensure sheet vapour control layers are properly sealed at junctions, and/or.
- Ensure any vapour control plasterboard is jointed in accordance with manufacturer's instructions.
- Always return vapour control layers into door and window reveals, heads and sills.
- Cut vapour control layers tight to electrical outlets and seal at piped service penetrations.

General Arrangements

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8.05 Level threshold. Insulation above slab.



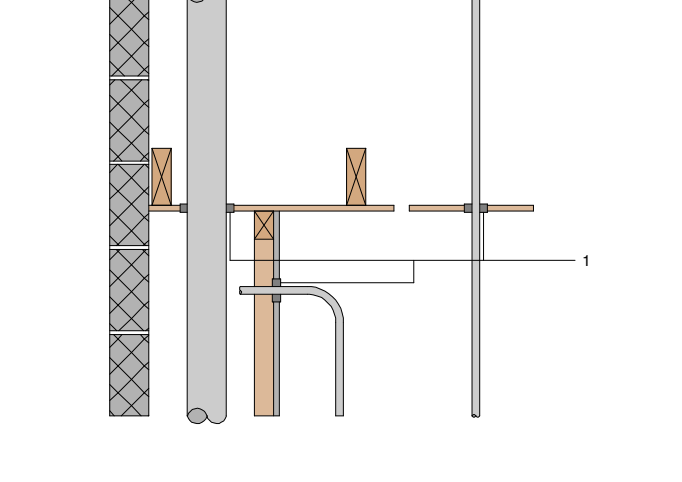
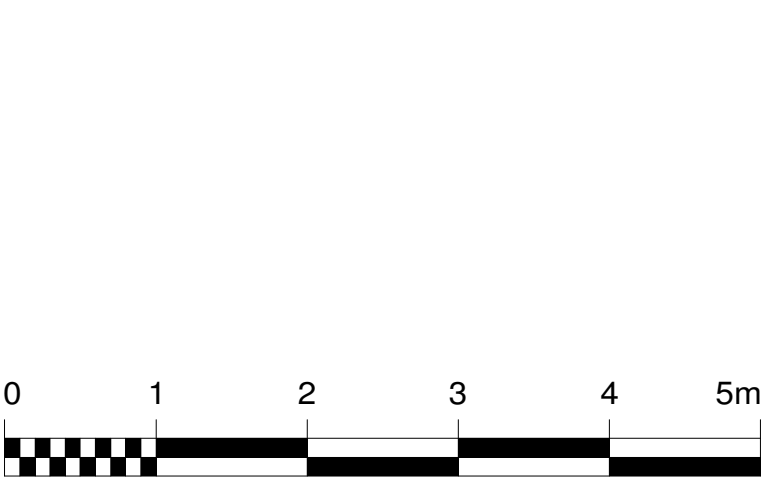
Notes:

1. Continue floor insulation up to back of sill.
2. Optional insulation for casting of slab (not required for thermal bridging purposes).

This detail is provided to show the position of insulation. Slab details and positions of DVPs and DVPs may vary according to wall and floor type.

General Arrangements

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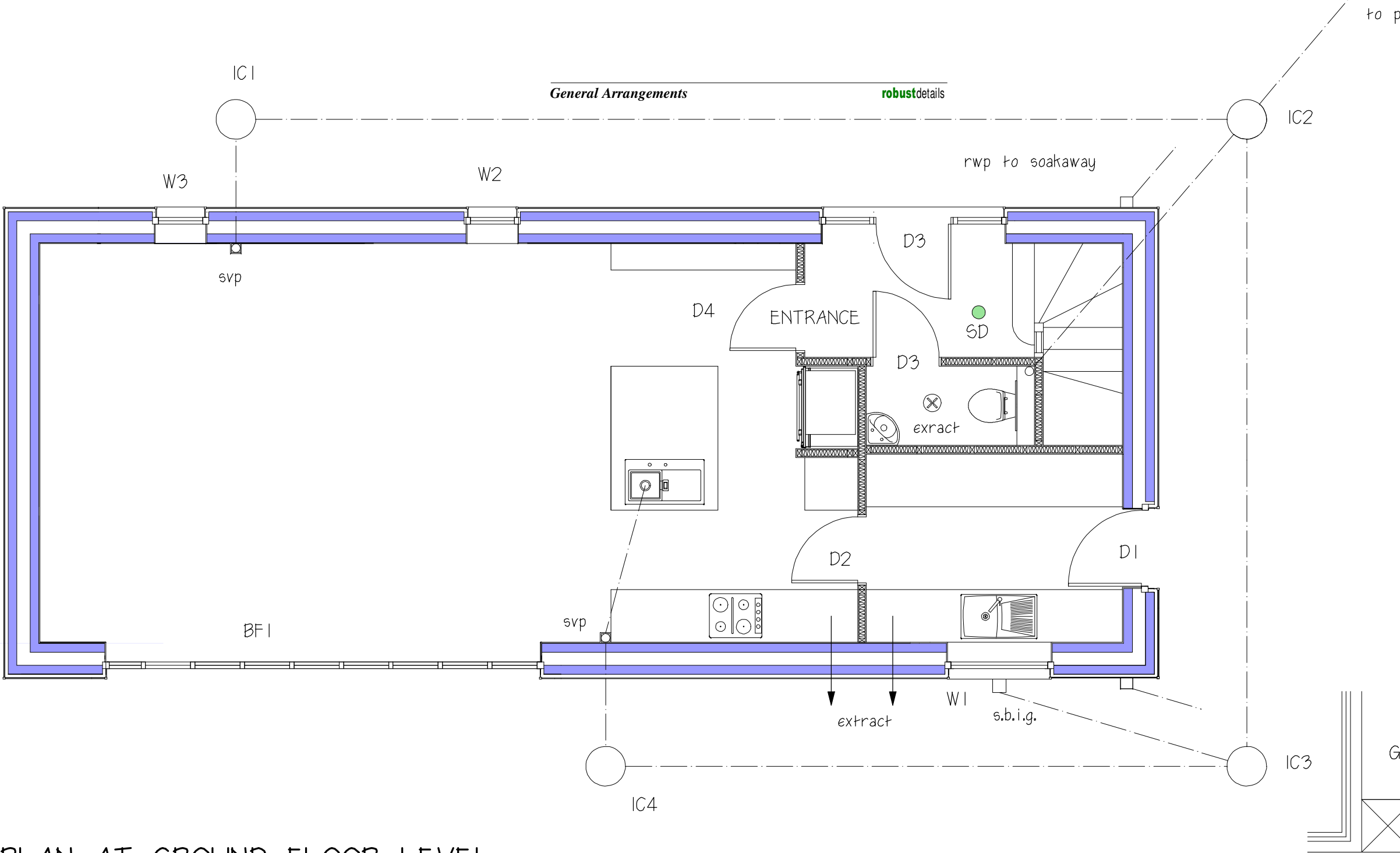
Notes:

1. Seal all service penetrations with expanding foam or other suitable insulant. For large voids mineral wool or other material may be used to provide a backing for the insulant.

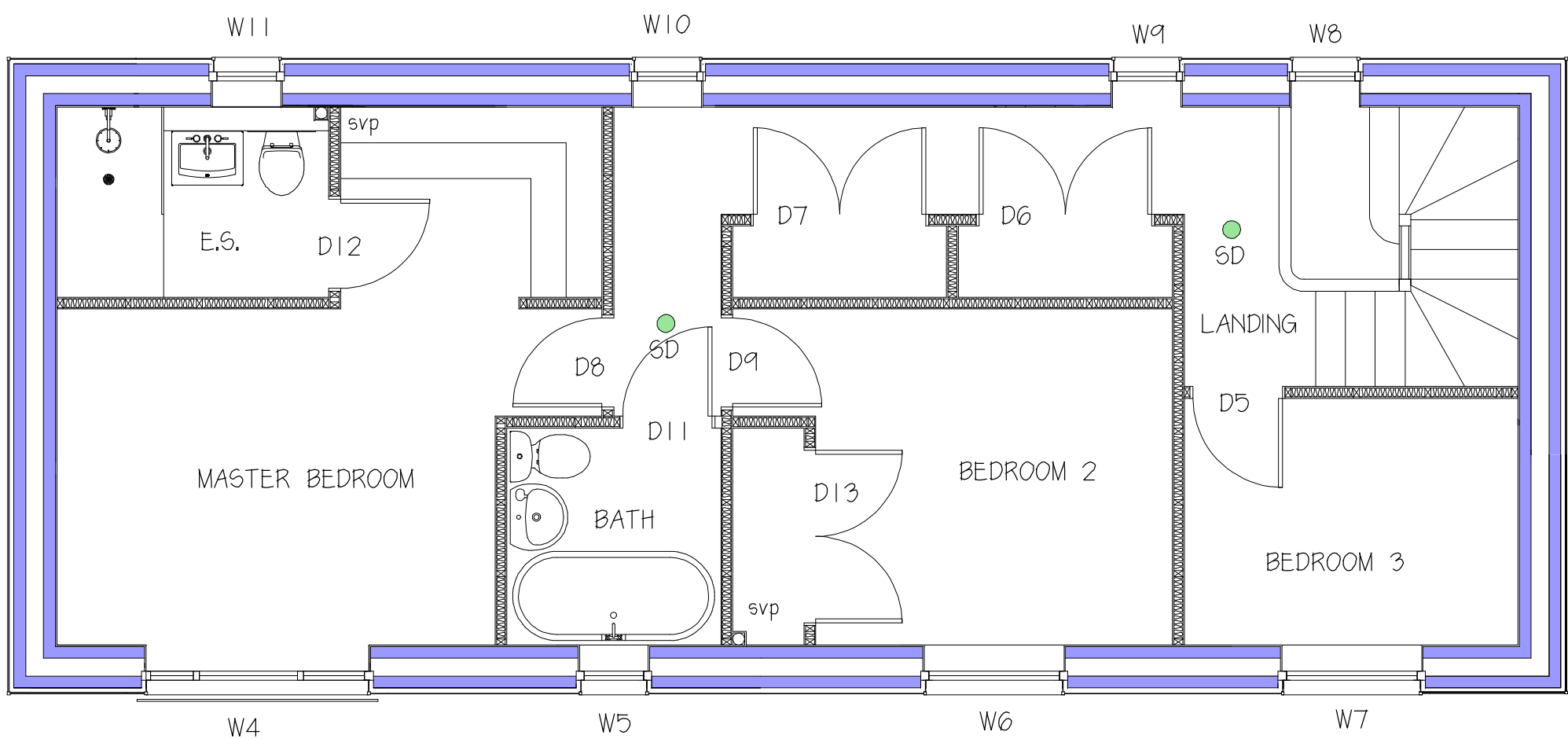
These details also apply to service penetrations through ground floors.

General Arrangements

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PLAN AT GROUND FLOOR LEVEL



PLAN AT FIRST FLOOR LEVEL

A P & T E FARWELL
proposed dwelling
at
stockbottom farm
pitton road
salisbury
sp5 1su

WORKING DRAWING

scale 1:50 date may 26

drawing no Bs/wd/101