

This document contains amended and additional conventions (v 1.1) applicable to the Jersey-modified RdSAP 2012 version 9.92. This list of conventions will be extended as appropriate.

This edition of the Conventions supersedes all previous editions and, where any Convention is in conflict with the published SAP specification, the Convention takes precedence.

#	Topic	Conventions	Issue date
1.01	Use of RdSAP	RdSAP is for assessment of existing dwellings only. Where an EPC is required for a new dwelling under the building bye-laws it must be a SAP EPC. Any new dwelling, including dwellings created by change of use, must be assessed using the States of Jersey JSAP tool. For this purpose a new dwelling is one for which a building permit has been issued on or after 1st January 2011. For a new dwelling, where no as-built EPC has been lodged with the States of Jersey, a SAP EPC is still required, irrespective of whether the dwelling has been occupied.	Sept 18 Amend Nov 18
1.02	Flat or maisonette	A dwelling that does not extend to all storeys of the building is a flat or maisonette. RdSAP makes no distinction between flats and maisonettes as regards calculations; confirm preference with homeowner.	Sept 18
1.03	Bungalow	A bungalow is a dwelling with all of the habitable accommodation on one floor. This excludes chalet bungalows and bungalows with habitable loft conversions, which are treated as houses.	Sept 18
1.04a	Self-contained dwelling attached to or forming an extension of another building	A property can have an additional building unit (e.g. an 'annexe') which, if it is self-contained, and meets the "building" definition, needs to have its own EPC. A building unit designed or altered for separate self-contained use could be indicated by the accommodation having its own cooking and bathing facilities and its own access (from the outside, or via a communal corridor, without having to enter via the main dwelling), and may have separate or shared provision of heating and ventilation. Also, the presence of an internal connecting door between two dwellings will still qualify the dwelling as being self-contained. An example might be a self-contained flat in a building. If the 'annexe' is not self-contained see 1.04b.	Sept 18

#	Topic	Conventions	Issue date
1.04b	Not self-contained separate part of dwelling	<p>If there is a separate part of the dwelling which is not self-contained but contains rooms that are used as part of the main dwelling, e.g. bedrooms, study etc. in a large detached garage or outbuilding converted into part of the living accommodation of a main property:</p> <ul style="list-style-type: none"> <li>- if heated by the main heating system (as defined for the main dwelling), include in the assessment of the main dwelling and a single EPC for the main dwelling to be issued</li> <li>- otherwise omit from the assessment.</li> </ul>	Sept 18
<b>2. Measurements and geometry</b>			
2.01	Measurements	<p>State on site survey notes/plans whether the dimensions recorded are external or internal. When measuring internally, measure between the finished internal surfaces of the walls bounding the dwelling. Where that cannot be done directly (i.e. when measuring room by room) include an allowance for the thickness of internal partitions.</p> <p>Measure all perturbations (e.g. bay windows) but disregard chimney breasts unless the assessor considers them significant e.g. large inglenook.</p> <p>Lowered ceilings (e.g. in kitchens and bathrooms) are disregarded.</p>	Sept 18
2.02	Precision of lengths	Measure to two decimal places (0.01 m) or better.	Sept 18
2.03	Sheltered wall length (unheated corridors)	<p>Always include in the heat loss perimeter</p> <p>When a dwelling (flat or maisonette) has a sheltered wall to an unheated corridor on more than one storey the sheltered length is the total for all storeys with a sheltered wall (example: 2 storeys with sheltered wall on each storey, length of sheltered wall is 5 m on each storey: enter 10 m for the sheltered length).</p> <p>The sheltered wall can be in any building part but must be recorded as an alternative wall (see 3.04).</p> <p>Where the sheltered wall extends over more than one building part, e.g. it extends across the main building and an extension, assign the sheltered wall length to the building part with the longer sheltered wall and deduct the relevant amount from the heat loss perimeter of the other. Example: total unheated corridor length is 10m of which 2m is in the main building part and 8m in the extension. Record the extension as having the sheltered alternative wall of length 10m, increase the heat loss perimeter of the extension by 2m and deduct 2m from the heat loss perimeter of the main dwelling.</p>	Sept 18

#	Topic	Conventions	Issue date
2.04a	Habitable room count	<p>Habitable rooms include any living room, sitting room, dining room, kitchen/diner, bedroom, study and similar; and also a non-separated conservatory.</p> <p>Excluded from the room count are: any room used solely as a kitchen, utility room, bathroom, cloakroom, en-suite bathroom/shower room/toilet or similar; any hallway, stairs or landing; and also any room not having an external window.</p> <p>For a kitchen to be a kitchen/diner it must have space for a table and 4 chairs.</p> <p>A lounge/dining room where the door was temporarily removed (i.e. architrave and hinges still there) is two habitable rooms.</p> <p>A lounge/dining room with the door permanently removed (hinge holes filled, etc.) is one habitable room.</p> <p>A non-separated conservatory adds to the habitable room count if it has an internal quality door between it and the dwelling. If a conservatory is open to the rest of the dwelling it is NOT counted as a separate room.</p>	Sept 18
2.04b	Heated habitable room count	<p>Includes all habitable rooms heated by either main heating system(s) or fixed secondary heating</p> <p>Bedrooms with only open fire-places are disregarded from the heated habitable room count when identifying the heating systems (main and secondary).</p>	Sept 18
2.05	Basements (whether to include in the assessment)	<p>Include when accessed via a permanent fixed staircase such that one is able to walk downwards facing forwards and either:-</p> <ul style="list-style-type: none"> <li>- basement is heated via fixed heat emitters, or</li> <li>- basement is open to the rest of the dwelling, i.e. no door.</li> </ul> <p>Does not necessarily contain habitable rooms.</p>	Sept 18
2.06	Porches (Whether to include in the assessment)	<p>If heated always include (separated or not).</p> <p>If external, not heated, and thermally separated, - disregard.</p> <p>If internal, not heated, and thermally separated, - disregard.</p>	Sept 18
2.07	Mezzanine floor	<p>Enter the part of the property above and below the mezzanine deck as a two storey extension. Treat the remaining part as a single level with the full floor to ceiling/roof height.</p> <p>If the mezzanine is located such that it has no heat loss perimeter then assign a nominal 1 m perimeter to each floor of the mezzanine part and deduct 1 m from the heat loss perimeter of the other part.</p>	Sept 18

#	Topic	Conventions	Issue date
2.08	Vertical extension	<p>Where an extension has been built over part of the existing dwelling, divide the part built over into two, one of which has “<i>same dwelling above</i>” and for the other describe the roof construction and insulation. Enter the new upper floor as an extension with “<i>same dwelling below</i>” and the original part with “<i>same dwelling above</i>” for the roof description.</p> <p>It is possible for an extension to be both above and alongside the rest of the dwelling. Such a building part is not defined in RdSAP and in this case divide the extension into two, one above and the other alongside.</p> <p>A roof room cannot be a vertical extension in its own right.</p>	Sept 18
2.09	More than 4 extensions	Add together floor areas and exposed perimeters of extensions (or add extension to main dwelling) to reduce to four extensions. Combine parts having the most similar age bands (refer to SAP Appendix S for U-values of relevant constructions). Use alternative wall where appropriate.	Sept 18
2.10	Definition of a “window”	<p>A window is an opening in an external wall or roof of a building, fitted with glass or similar material, usually in a frame, that admits light. If it can be opened, then it is primarily to admit fresh air and not to provide entry into the property (with the exception of patio doors).</p> <p>Sliding patio doors may be treated as windows due to the high ratio of glazing in relation to the area of the whole opening.</p>	Sept 18
2.11	Window area	<p>Consider the whole dwelling (windows, glazed doors and roof lights), including any extensions (<b>but not thermally separated conservatories</b>).</p> <p><b>Typical</b> applies if the surface area of the glazing in the dwelling is essentially as would be expected of a typical property of that age, and size. Use this category even if there is slightly more or less glazing than would be expected.</p> <p><b>More than typical</b> applies if there is significantly more surface area of glazing than would be expected, perhaps because there is a sun room or patio doors have been added.</p> <p><b>Less than typical</b> applies if there is significantly less glazing than would be expected. This is rare as homeowners tend not to take out windows, but a property may have an unusual design with few windows.</p> <p><b>Much more than typical</b> and <b>Much less than typical</b> should be used for those dwellings with very unusual amounts of glazing; such as a glass walled penthouse flat or a Huf Haus. Due to this option allowing measurements of each window to be accounted for, this option should also be used if a dwelling has a mixture of glazing types e.g. single, double, secondary and triple, or a mixture of glazing gaps.</p>	Sept 18
2.12	Windows (U-values and g-values)	<p>Default U-values and g-values can be overwritten and known data specified only if documentary evidence is provided, which can be either a Window Energy Rating certificate (as defined by BFRC) or manufacturer’s data.</p> <p>The U-value is for whole window, not centre pane.</p>	Sept 18

#	Topic	Conventions	Issue date
2.13	Secondary glazing	<p>If single glazing with secondary glazing, record as secondary glazing.</p> <p>If double-glazing with secondary glazing, record as newer double glazing.</p> <p>If secondary glazing has been removed in summer, enter as above only if assessor can confirm that the panels exist and can be re-fitted. Evidence to be recorded on site notes.</p>	Sept 18
2.14	Multiple glazing age	<p>Choose '<i>unknown</i>' date if there is no evidence of the date.</p> <p>Multiple glazed units can be dated via the following methods:</p> <ul style="list-style-type: none"> <li>a) The manufacturing date on the spacer bar, or possibly on the frame.</li> <li>b) There is documentary evidence confirming the date of installation of the window e.g. FENSA / CERTASS / Building Control certificate or manufacturers guarantee.</li> <li>c) Whole dwelling build date if after the following trigger date: '<i>2004 or later</i>', where applicable.</li> </ul> <p>If none of the above applies choose '<i>unknown</i>'.</p>	Sept 18
2.15	Glazing gap	<p>Glazing gap is the width of the spacer bar between the two panes of glass.</p> <p>If the prevalent type of windows with PVC frames installed are pre-2004, identify glazing gap depth to the nearest value to 6, 12 or 16 mm.</p> <p>If the gap cannot easily be identified, select either 6 (if narrow gap) or 16 (if wide gap).</p> <p>Where a mixture of glazing gaps are present, all window areas should be measured.</p> <p>If there is a mixture of PVC and non-PVC frames, record the frame type according to which is most prevalent.</p>	Sept 18
2.16	External doors	<p>Any hinged portal providing access to a dwelling, irrespective of glazing, should be considered as a door.</p> <p>An external door is a door that forms part of the heat loss perimeter of the dwelling.</p> <p>A multiple door should be recorded as such, e.g. a double door should be counted as 2 doors.</p> <p>A door to a <u>heated</u> access corridor is not included in the door count.</p> <p>A door to an <u>unheated</u> access corridor is part of the sheltered wall. If there is a second external door in the property it is directly to the outside.</p> <p>It is possible for a property to have no external door in the RdSAP data set (when any entrance to the property is via sliding patio doors which are counted as windows in SAP, or via a heated corridor).</p> <p>A door is counted as insulated only if documentary evidence is provided, which must include a U-value or manufacturer reference enabling the assessor to ascertain the U-value from the manufacturer. If there is more than one insulated door and they have different U-values, enter the average U-value.</p>	Sept 18

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2.17	Sun room	For a highly glazed part of the dwelling, such as a sun room, which does not meet the criteria for a conservatory (50% of walls and 75% of roof glazed), in most cases use the glazing option of "more than typical". That adds 25% to the total glazed area of the dwelling. If you deem that this is not appropriate, assess window area by either: a) measuring all windows and roof windows throughout the dwelling, or b) measuring all windows and roof windows in the sun room, and use Table S4 to obtain the window area of remaining part of dwelling which is entered as a single window with orientation East. Record method used in site notes.	Sept 18
2.18	Dimensions	Do not mix internal and external measurements. If a basement or roof room is included in the assessment, it is likely that internal dimensions will be used throughout the dwelling.	Sept 18
2.19	Store rooms and utility rooms <i>(whether to include in the assessment)</i>	If heated always include. If accessible only via a separate external door and not heated, disregard. If directly accessible, not heated and thermally separated, disregard.	Sept 18
2.20	Garages <i>(whether to include in the assessment)</i>	If heated from main heating system, always include. The presence of a boiler within the garage does not make it heated.	Sept 18
2.21	Draught proofing <i>(of external windows and doors)</i>	If the state of the draught proofing cannot be determined, take triple, double or secondary glazed as being draught proofed, and single glazed windows and non-uPVC doors as not draught proofed unless there is a contrary evidence of draught-proofing. Include glazing in a non-separated conservatory.	Sept 18
2.22	Dwelling adjacent to commercial premises	If a dwelling or part of a dwelling has commercial premises below record as partially heated space below. If a dwelling or part of a dwelling has commercial premises above record as another dwelling above. If a dwelling has commercial premises alongside it, treat the separating wall as a party wall.	Sept 18
2.23	Wall thickness <i>(per building part)</i>	Measure wall thickness in mm of each external wall (elevation) and any alternative wall within a building part. Photographic evidence is required for each different thickness. It can be measured at door or window reveals or by internal/external measurement comparison (which can be direct measurement or estimated by counting bricks). Where thickness varies a little for the same construction use the average of the measured values. For stone walls see convention 3.04.	Sept 18

#	Topic	Conventions	Issue date
2.24	Sloping sites	<p>Where an individual wall (elevation) is not a heat loss wall for its full height (because of stepped arrangements either within the dwelling or between the dwelling and an adjacent one) obtain the “effective heat loss perimeter” for the individual wall as follows:</p> <ol style="list-style-type: none"> <li>1. Where documentary evidence is available use it to calculate the wall’s heat loss area. Divide this area by the room height to obtain the “effective heat loss perimeter”.</li> <li>2. Where documentary evidence is not available but the assessor is able to measure the heat loss area, this area is divided by the room height to obtain the “effective heat loss perimeter”.</li> <li>3. If neither 1 nor 2 is possible, make a visual estimation and use these guidelines: <ol style="list-style-type: none"> <li>a. if height of heat loss area is not more than 25% of the room height, the “effective heat loss perimeter” is zero (disregard as heat loss wall);</li> <li>b. if height of heat loss area is more than 75% of the room height, “effective heat loss perimeter” is equal to the actual heat loss perimeter;</li> <li>c. if height of heat loss area is more than 25% and less than or equal to 75% of the room height, the “effective heat loss perimeter” should be considered to be 50% of the wall’s actual heat loss perimeter.</li> </ol> </li> <li>4. If estimation cannot be made, use 3 c.</li> </ol> <p>The “effective heat loss perimeter” of the individual wall is then included in the heat loss perimeter of the building part.</p>	Sept 18
2.25	Party wall lengths	<p>To be recorded in all cases where a party wall is present.</p> <p>Party wall is any wall between the dwelling and:</p> <ul style="list-style-type: none"> <li>- another dwelling;</li> <li>- commercial premises;</li> <li>- a heated corridor or stairwell in blocks of flats;</li> <li>- a heated common area.</li> </ul> <p>Note: a heated corridor is one with controlled fixed heaters; heat from distribution pipes is disregarded. A flat in a block having <b>only</b> an unheated corridor adjacent to it is treated as detached (no party wall). See convention 2.03</p>	Sept 18
2.26	Private access stairwell to a single dwelling (e.g. access to upper flats in four in a block dwelling)	<p>If access stairwell separated from the dwelling by an external quality door, - treat stairwell as a corridor.</p> <p>If there is no external quality door between the dwelling and access stairwell – treat access stairwell as part of the dwelling.</p> <p>Treat upper flat with an access stairwell as a single storey with the floor area which extends to the perimeter of the access stairwell (at the floor level of the dwelling); record height as the rest of the property.</p> <p>For the ground floor flat ignore presence of stairwell (treat as external wall).</p>	Sept 18

#	Topic	Conventions	Issue date
<b>3. Construction and insulation</b>			
3.01	Age band for conversions	After the application of Convention 1.01, for a conversion which was a change of use (e.g. barn converted to a dwelling) or where a dwelling has been sub-divided (e.g. house to flats) <b>always use the original construction date, and upgrade any thermal elements where documentary or visual evidence confirm improvement.</b>	Sept 18 Amend Nov 18
3.02	Cavity wall type	Where a cavity wall has been identified, enter as such, irrespective of the width of the cavity. Record insulation level, presence of dry-lining and wall thickness.	Sept 18
3.03	System build type	If there is a system built wall that has evidence of retro cavity fill, record as system build with internal insulation, thickness unknown, and include Addendum 1. See also convention 3.15 relating to high-rise system built dwellings. Timber frame should be recorded as such and not as system build irrespective of the external cladding.	Sept 18
3.04	Alternative wall	An alternative wall can be: <b>(i)</b> A sheltered wall (to unheated corridor), or <b>(ii)</b> A wall that has a construction type or heat-loss characteristics (U-value) different from the main external wall  Always include the alternative wall in the assessment in case (i); and disregard it in case (ii) if it is less than 10% of total exposed wall area of the building part (including windows and doors).  If there is both a sheltered wall and one with different construction type or U-value, treat the sheltered wall as an alternative wall and split the dwelling into two parts to allow for the wall with the different construction type or U-value.  For stone walls assess thickness at each external elevation and at each storey and use alternative wall if the thickness varies by more than 100 mm, see also 2.23.	Sept 18
3.05	Identifying internal wall lining (with an airspace behind)	This includes any type of internal lining that creates an airspace behind it, e.g. plasterboard on dabs, lath and plaster. Use tap test for plasterboard on dabs or on battens. If tap test is inconclusive regard as not dry-lined. Note. Applies only to stone, solid brick and cavity walls in age bands A to C.	Sept 18
3.06	"As built" insulation category (walls, floors, roofs)	Assume "as-built" if there is no evidence of retro-fitted insulation including: 1. a pitched roof with sloping ceiling or a flat roof where there is no documentary evidence. 2. a roof space with rafter insulation if no evidence of retro-fitted insulation 3. roof rooms where there is no access and no documentary evidence.	Sept 18

#	Topic	Conventions	Issue date
3.07	"Unknown" insulation <b>type</b> (walls, floors, roofs)	<p>Do not use the "unknown" insulation type option for insulation inappropriately as this automatically suppresses any insulation recommendation.</p> <p>"Unknown" should be used only in exceptional circumstances, such as:</p> <ul style="list-style-type: none"> <li>• when there is conflicting evidence (inspection and/or documentary) of added insulation whose presence cannot be ascertained conclusively</li> <li>• for a fully boarded loft unless householder has documentary evidence (maximum thickness is depth of joists) or is prepared to lift the boards.</li> <li>• where there is a pitched roof and no access to the loft space or access prevented (see 3.10) and no documentary evidence</li> </ul> <p>In these cases clarification must be provided in site notes.</p> <p>Note: if the floor construction cannot be determined, "unknown" construction is appropriate.</p>	Sept 18
3.08	"Unknown" insulation <b>thickness</b>	<p>"Unknown insulation thickness" should be used only in exceptional circumstances, such as:</p> <ul style="list-style-type: none"> <li>- conflicting evidence of insulation thickness (visual and/or documentary)</li> <li>- when you can see insulation present but cannot measure its thickness.</li> </ul> <p>Dry lining alone does not confirm the presence of insulation</p>	Sept 18
3.09	Insulation thickness	<p>If insulation is foil-backed foam or a multi-foil (multi-layered blanket-type insulation which contains at least three layers of foil-type material), the thickness is entered as twice its actual thickness.</p> <p>If there is both internal and external wall insulation add the insulation thicknesses together and enter as external.</p> <p>This convention applies only in cases where the assessor specifies the thickness of insulation within the RdSAP software, but not if the U-value is calculated.</p>	Sept 18

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3.10	Access to loft insulation and rafter insulation	<p>Where safe and practicable access to the loft is possible, loft insulation should be measured and photographic evidence provided of its measured thickness.</p> <p>“No access” means there is no loft hatch or other means of gaining access to the loft space.</p> <p>If there is a loft hatch or other means of gaining access but it could not be used on the date of the site visit (e.g. painted over, obstruction preventing access for health and safety reasons) record as “access, loft insulation unknown”.</p> <p>If loft insulation is fully obstructed (e.g. boarded or obscured by items stored) enter “pitched, access, loft insulation unknown” unless householder has documentary evidence (maximum thickness is depth of joists) or lifts the boards or removes the obstructions.</p> <p>If the loft, or part of the loft, is boarded and the assessor can establish and evidence the insulation present under the boards at multiple locations below the boarded area (visible through gaps or extending in from the edges) the boarded area is treated as insulated to the thickness that can be proved by the evidence.</p> <p>If the property has multi-foil or foam insulation at joists or rafters, see convention 3.07.</p> <p>If joist and rafter insulation are both present base the assessment on the joist insulation only.</p> <p>If varying levels of insulation, use an area-weighted average thickness. However, if there is an area with no insulation the dwelling should be split to allow different roof insulation scenarios.</p> <p>In the case of a thatched roof for age band J onwards use 'as built' rather than rafter insulation if there is rafter insulation in addition to the thatch.</p>	Sept 18
3.11	Roof rooms / Attics (whether to include in the assessment and rules for detailed measurements)	<p>Include when accessed via a permanent fixed staircase such that one is able to walk downwards facing forwards. Does not necessarily contain habitable rooms.</p> <p>For a roof room to be classed as such and not a separate storey, the height of the common wall must be less than 1.8 m for at least 50% of the common wall (excluding gable ends or party walls). The common wall is a vertical continuation of the external wall of the storey below. See diagram in Appendix 1.</p> <p>If all elements of the roof room (ceiling/slope/stud/gable) have the same insulation and the U-value is available, the default U-value can be overwritten whilst leaving the RdSAP assumed areas as is.</p> <p>Detailed measurements of all elements are required only if evidence exists that the flat roof/slope/stud wall/gable wall have different levels of insulation or their U-values are known.</p> <p>Where detailed measurements are made and the floor area of the parts of the dormer windows protruding beyond the roof-line is less than 20% of the floor area of the roof room, measure the elements of the roof room as if the dormers were not there. Otherwise total the vertical elements of all dormers in that building part and enter as stud wall and the flat ceiling elements as flat ceiling.</p> <p>A roof room is classified as "connected" only if there is another building part of the same dwelling with a storey (roof room or normal storey) at the same level; no assumptions are to be made about an adjacent property.</p>	Sept 18

#	Topic	Conventions	Issue date
3.12	Age band for roof room	Same as the building part unless evidence proves otherwise. Evidence includes documentary evidence (e.g. building bye-law applications), dated photographs of the property concerned validating date of construction (the evidence might establish the earliest possible date of construction if roof room is absent in the photograph).	Sept 18
3.13	Whole dwelling (or building part) within roof	When the property or a building part of it is a single storey entirely located within a roof, model as: <ul style="list-style-type: none"> <li>- lowest occupied level;</li> <li>- timber frame construction of appropriate age band;</li> <li>- room height must be entered as 2.2 m;</li> <li>- include area and perimeter measurements as a normal storey;</li> <li>- enter roof as pitched roof.</li> </ul> <p>If there are two storeys within the roof, enter the lower storey as above and the upper storey as room-in-roof.</p>	Sept 18
3.14	U-value entry (walls, roofs, floors)	The U-values of existing elements (walls/roofs/floors, etc.) must be the RdSAP default values (e.g. entered "as built") and must not be overwritten unless specific documentary evidence of the thermal conductivity of individual materials of the building element of the property being assessed is provided and was undertaken in accordance with BR 443 "Conventions for U-value calculations" (BRE, 2006). The U-value is that of the whole element, including any added insulation. Documentary evidence applicable to the property being assessed (see convention 9.02) must be provided and recorded if overwriting any default U-value. This evidence shall be either: <ul style="list-style-type: none"> <li>- relevant building control approval, which both correctly defines the construction in question and states the calculated U-value; or</li> <li>- a U-value calculation produced or verified by a person with suitable expertise and experience.</li> </ul> <p>Evidence of suitable expertise and experience can be demonstrated by, but is not limited to, membership of a recognised U-value calculation competency scheme or OCDEA or Level 4 non-domestic energy assessor membership, or any other process recognised by Accreditation Schemes/Approved Organisations and Government.</p> <p>Where it is known that only part of an element has been insulated use the alternative wall if possible for the insulated part, or use extensions.</p>	Sept 18

#	Topic	Conventions	Issue date
3.15	High rise properties	<p>High rise properties (greater than 4 storeys) built with non-traditional construction methods (i.e. <u>not</u> timber frame, solid brick, cavity brick, stone) are deemed to be system built and should be recorded as such.</p> <p>For high rise properties built during or after 1967, that have a cavity/stretcher bond exterior wall, enter the wall as 'Cavity Wall' and select 'Access Issues' in Hard to Treat Cavities and include Addendum 1, 'Wall type does not correspond to options available in RdSAP'.</p> <p>If the high rise property has multiple exterior wall types of cavity and other constructions, e.g. concrete panels, record the construction as system built and deal with the cavity wall following convention 2.13 (Alternative wall). If a cavity wall is entered as an alternative wall, select 'Access Issues' in Hard to Treat Cavities and Addendum 1 'Wall type does not correspond to options available in RdSAP'.</p> <p>For high rise properties with cavity walls and evidence of retro cavity fill, record as 'Filled Cavity' and include Addendum 1.</p>	Sept 18
3.16	Rooms within a Mansard roof	A storey having non-vertical walls of at least 70° pitch constitutes a separate storey; it is not treated as a roof room. Use alternative wall if appropriate.	Nov 18
<b>4. Main heating</b>			
4.01	Heat emitters	If one heating system feeds both underfloor and radiators, enter radiators. This is because for radiators a higher flow temperature is assumed (unless flow temperature is known).	Sept 18
4.02	Portable electric heaters	Portable electric heating shall never be input into an RdSAP assessment as these devices are not part of the fabric of the dwelling. Only if permanently fixed should they be considered.	Sept 18
4.03	Design flow temperature for condensing boilers and heat-pumps	<p>Where known, the design flow temperature should be entered for condensing boilers and heat pumps either from PCDB or SAP Table 4a. This applies to both systems – with radiators and underfloor.</p> <p>The design flow temperature for condensing boilers should be recorded as unknown unless there is a documentary evidence that the system has been designed and commissioned as a low temperature one.</p>	Sept 18
4.04	Storage heaters on single tariff electricity.	If storage heaters are present as main heating but there is only a single rate meter – enter as ' <i>electric direct-acting room heater - panel heaters</i> ' and include Addendum 6.	Sept 18
4.05	Boiler missing or not working	<p>If boiler/heating system is fitted/installed but not working (or condemned) it should still be entered as the main heating system.</p> <p>If boiler/heating system not fitted/installed, enter no heating system or do another survey when the heating system is installed.</p>	Sept 18

#	Topic	Conventions	Issue date
4.06	Devices not listed in PCDB	<p>If micro-CHP cannot be found in the database enter as condensing boiler and include Addendum 5.</p> <p>Where high-heat retention storage heaters are present but the specific brand and model is not found in the database, the default SAP table description shall be modern slimline storage heater (auto-controls).</p> <p>If a boiler or heat pump cannot be found, the worst-case scenario from the SAP table description should be used.</p>	Sept 18
4.07	Community heating and controls	<p>A system in which a heat generator provides heat and/or hot water to more than one premises.</p> <p>Each dwelling to be assessed individually.</p> <p>If the heat generator is in the dwelling, it is the heating system for that dwelling.</p> <p>If the heat generator is not in the dwelling, treat as community heating.</p> <p>Where space heating is provided by community heating, only controls within the dwelling should be considered as part of the assessment. Shared controls, on the boiler for example, should be excluded.</p>	Sept 18
4.08	Fuel and heat source used by community heating	<p>Where the community scheme can be identified in the community network database, it is to be selected. If there is more than one data record, only the current record can be used.</p> <p>Otherwise try to find out what the fuel is. If it cannot be ascertained select mains gas.</p>	Sept 18

#	Topic	Conventions	Issue date
4.09	Two main systems	<p>RdSAP allows for two main heating systems.</p> <p>If second main heating system is used only for domestic hot water see 6.02.</p> <p>Main systems 1 and 2 cannot be room heaters except in the case of the dwelling's heating consisting solely of room heaters.</p> <p>When there are two main systems:</p> <ul style="list-style-type: none"> <li>a) system 1 always heats the living area;</li> <li>b) when both systems heat the living area, main system 1 is the one that heats the most habitable rooms;</li> <li>c) when both systems heat the same number of habitable rooms; main system 1 is the system that provides water heating;</li> <li>d) when neither or both main heating systems heat water, main system 1 is the system which is cheapest to run (fuel cost from SAP Table 12 divided by the efficiency of heating system).</li> </ul> <p><b>Where two systems serve different spaces, record the heating proportion based on floor area served by each main system;</b></p> <p>Where two systems serve the same heating circuit the default assumption should be a 50/50 split. A different ratio can only be used if there is clear documentary evidence to back this up.</p> <p>When there are two main systems and a recommendation is made for heating system upgrade, include addendum 9.</p> <p>A second main system is not to be confused with a secondary heater. See section 5.01 to 5.03 for rules on secondary heaters.</p> <p>If there is more than one type of storage heater (old large-volume, fan-assisted, integrated storage/direct acting, high heat retention): treat as two main systems. Then if either main system 1 or main system 2 has more than one type, choose the most prevalent.</p> <p>If there are more than two main heating systems, use the rules above for determining main systems 1 and 2 and disregard the third.</p> <p>If there are only room heaters in the dwelling and there is more than one type of room heater (e.g. gas fire and an electric fire) and they both heat habitable rooms, then see rules above for two main systems.</p> <p>If one of them heats a habitable room, and the other one in non-habitable room, treat as main and secondary heating respectively.</p>	Sept 18
4.10	Straw bales and other biomass	For straw bales and other types of biomass fuel that are not available in RdSAP, select wood logs and include addendum 12.	Sept 18
4.11	TRVs	Include when TRVs present on 50% or more of the radiators. For this purpose include <b>all</b> radiators including those not in a habitable room (e.g. in a hallway).	Sept 18

#	Topic	Conventions	Issue date
4.12	Electric heating appliances	Treat electric underfloor heating mats and infra-red heaters as electric panel heaters.	Sept 18
4.13	Electric CPSU	An electric CPSU uses 10-hour or 18-hour tariff. If on 7-hour tariff treat as water storage boiler. If on single tariff record as direct-acting electric boiler.	Sept 18
4.14	Time and Temperature Zone Control (TTZC)	A system of controls that allows heating times of at least two zones to be programmed independently, as well as having independent temperature control.	Sept 18
4.15	Central heating pump age	For separate pumps only, not within boiler. Record age as ' <i>unknown</i> ' if cannot be seen. Age is ' <i>2013 or later</i> ' if it has a label stating the EEI (energy efficiency index) or as indicated by date of manufacture from the ID plate; otherwise it is ' <i>2012 or earlier</i> '.	Sept 18
4.16	Heating programmed by mobile app only	Heating system controls programmed via a mobile app <b>only</b> , where there are no visible controls in the dwelling, are not included in the assessment, i.e. recorded as "no time or thermostatic control". Hive or Nest systems have manual controls as well as a mobile app, so would be input as ' <i>Programmer and room thermostat</i> '.	Sept 18
<b>5. Secondary heating</b>			
5.01	Secondary heating	Include if fixed emitter present regardless of whether main system(s) heat all rooms. If more than one secondary: select the device that heats greatest number of habitable rooms. If the same choose cheapest fuel – if same fuel select the device with the lowest efficiency. Electric focal point fires shall be included even if not wired by fixed spur. Secondary heaters in non-habitable rooms are still counted as a secondary heater.	Sept 18
5.02	Open fire as a heating source	An open <b>fire</b> is to be considered in the heating assessment if <b>a fire-place is</b> capable of supporting an open fire (that includes having a grate suitable for holding fuel), even if no fuel is present. The number of open <b>fire-places</b> is specified and used in the calculations as the number of open chimneys (for ventilation).	Sept 18
5.03	Fuels for solid fuel fires and room heaters	If it can burn only one fuel, specify that fuel, otherwise: Open fire – dual fuel; closed heater – wood logs if capable otherwise anthracite.	Sept 18
<b>6. Water heating</b>			
6.01	Dual immersion hot water cylinder with single electricity tariff	Enter as a single immersion and include Addendum 6.	Sept 18

#	Topic	Conventions	Issue date
6.02	Separate boiler or heat pump for DHW	Sometimes there is a separate boiler or heat pump providing DHW only.  Specify the two main heating systems as follows: - main system 1 is the one providing space heating (100% of heat is from main system 1); - main system 2 is the one providing DHW (0% of heat from main system 2);  If both main heating systems supply space heating only, a generic DHW-only boiler can be selected from the water heating options.	Sept 18
6.03	Enclosed hot water cylinders and insulation of hot water cylinders	For an unvented pressurised steel or plastic encased hot-water cylinder (e.g. Megaflo), treat insulation value as 50 mm factory-applied foam and assume ' <i>cylinderstat is present</i> '.  For Elson (wooden box) type record the actual thickness as factory applied insulation and check for the presence of a cylinderstat (otherwise record as "no access").  If factory insulated plus a jacket, measure the thickness of foam insulation plus 1/3 thickness of the jacket.	Sept 18
6.04	Hot water thermal store	If physically separate, treat as a cylinder.	Sept 18
6.05	Hot water cylinderstat	Include only when mounted on the side of the cylinder and has an electric connection.	Sept 18
6.06	Instantaneous water heater	Disregard a small water storage volume. A "small" volume means less than or equal to 55 litres; If the storage volume exceeds 55 litres, it is specified as an electric immersion or gas boiler for water heating only.	Sept 18
6.07	Electric shower	If the only water heater is an electric shower, specify as ' <i>electric instant water heating</i> '.	Sept 18
<b>7. Lights</b>			
7.01	Lights	Consider all fixed fittings within the dwelling. Include fixed under-cupboard kitchen lights. The number of light fittings is counted (not the number of bulbs, e.g. a chandelier is one fitting). Where there are 4 or more recessed downlighters / ceiling lights divide the light fitting count by 2. If no lamp is present: treat as low energy lamp.  LEDs, CFLs and LFLs are the only considered low-energy lighting. Halogen bulbs are <b>not</b> low-energy lighting.	Sept 18

#	Topic	Conventions	Issue date
<b>8. Recommendations</b>			
8.01	Suppression of recommendations	<p>Recommendations should be removed only if there is documentary evidence showing that a specific recommendation is not appropriate. A listed building or a property in a conservation area is not sufficient grounds in its own right to suppress a recommendation.</p> <p>If a recommendation is removed this must be recorded in site notes.</p> <p>Further guidance on specific recommendations can be sought from an appropriate professional organisation, for example heating engineers, building control officers, product manufacturers, trade associations, etc.</p>	Sept 18
8.02	Mains gas available	<p>Only if a gas meter or a gas burning appliance (e.g. gas cooker) is within the property. A closed-off gas pipe does not count.</p> <p>Where a boiler is present attached to a heating system (not in a box), and the mains gas meter has been removed for security reasons, enter a gas boiler as the main form of heating and indicate that mains gas is present.</p>	Sept 18
<b>9. Miscellaneous</b>			
9.01	Open chimney/fireplace count (for ventilation)	<p>Include all open chimneys/fireplaces in the fireplace count (both downstairs and upstairs) only when they are unrestricted and suitable for use.</p> <p>The definition is a vertical duct with a flue diameter of at least 200 mm or its equivalent <b>area, or other opening of a similar size.</b></p> <p>The following are <u>not</u> counted as open fireplaces:</p> <ul style="list-style-type: none"> <li>• Any open flue that is less than 200 mm diameter</li> <li>• A permanently blocked up fireplace, even if fitted with an airbrick</li> <li>• Any heating appliance with controlled flow of air supply i.e. appliance has closing doors</li> <li>• A flexible gas flue liner sealed into the chimney (because the diameter is less than 200 mm)</li> <li>• A chimney fitted with a damper enabling the flue to be mechanically closed when not in use</li> </ul> <p>Temporary means of blocking a flue, e.g. cardboard, newspaper bungs, chimney balloons and similar, are not a permanent means of controlling ventilation and therefore the chimney is counted as an open fireplace.</p> <p>Note that this relates only to the number of open fireplaces (it affects the ventilation rate assumed for the calculation). Other rules apply when considering the choice of main or secondary heating system. See also 5.02. (for heating)</p>	Sept 18

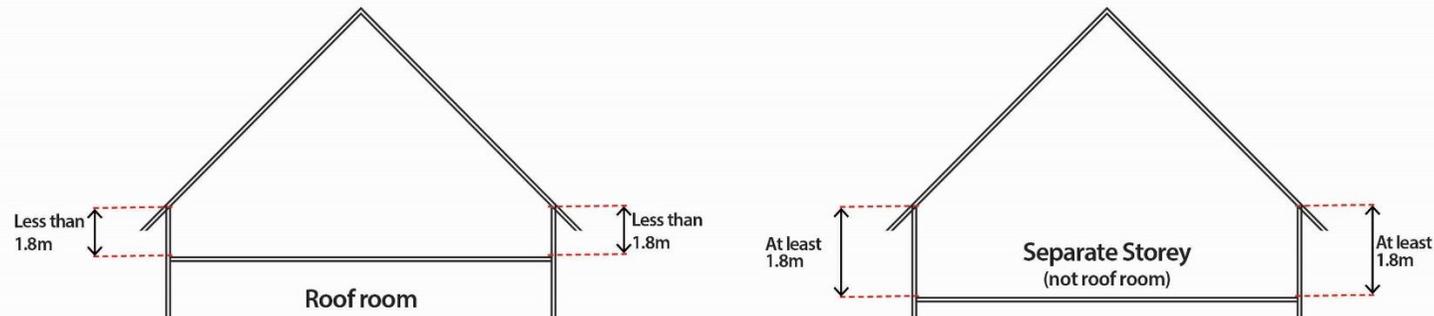
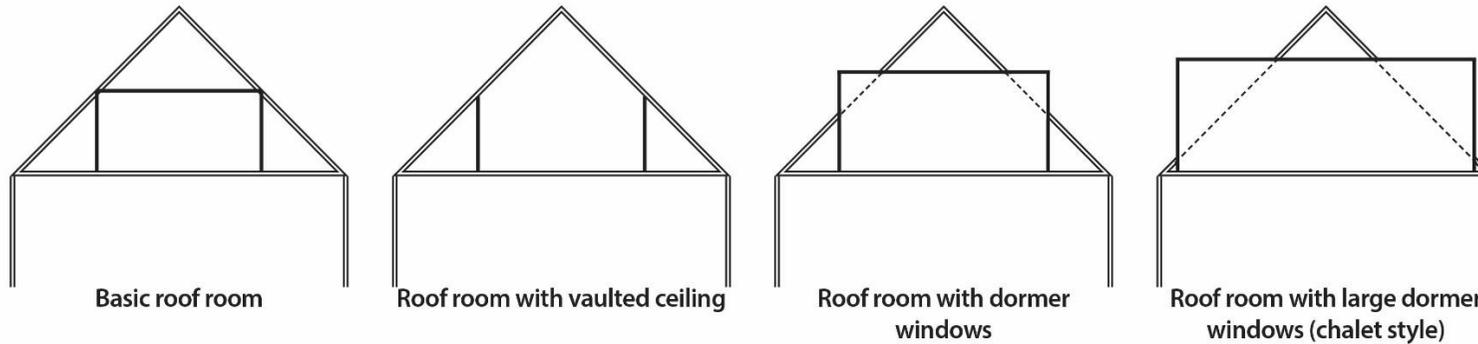
#	Topic	Conventions	Issue date
9.02	Documentary evidence	Acceptable documentary evidence includes, but is not limited to, official letters from the applicable Registered Social Landlord (RSL) or certificates, warranties, guarantees. The assessor must be confident, and able to demonstrate, that any documentation relates to the actual property being assessed and that there is no physical evidence to the contrary. Evidence of intent to install does not qualify as acceptable documentary evidence.	Sept 18
9.03	Lodgement of incorrect EPC	If you lodge an EPC in error and lodge a corrected EPC, inform your accreditation scheme so that the erroneous one can be marked "not for issue".	Sept 18
9.04	Cooling system present	Include fixed systems only. Do not include reversible heat pumps.	Sept 18
9.05	Photovoltaics	If photovoltaics are present, look for a schematic wiring diagram, which may be adjacent to the electricity meter or the consumer unit, or an MCS installation certificate, either of which should state the peak power (kWp) of the PV array. If the kWp cannot be ascertained, do not allocate the PV, except where it is connected to a meter serving a single dwelling. Where the meter is serving a single dwelling, record the percentage of the total roof area occupied by PVs. The total roof area includes main dwelling and all extensions where present. If there are PV panels on different planes of the roof, enter as separate systems. If a single kWp figure is provided, in this case estimate the relative area of each and apportion the kWp accordingly. PV connection to the dwelling's meter must be verified by the presence of a PV generation meter or documentary evidence. In all cases, the PV-generated electricity is included in the assessment of a dwelling only if the dwelling has a PV generation meter serving it. Where it cannot be determined that the PV supply is feeding into a meter serving the dwelling being assessed then no PV should be allocated to that dwelling. Where the PV supply is serving more than one building, or multiple dwellings within the building, the total capacity of the PV is allocated between the buildings on an area weighted basis based on an estimate of the total floor area of all of the buildings or dwellings served by the PV. This applies in all scenarios where the PV supplies more than one building, or multiple dwellings within the building, including where the other buildings are either all dwellings, a mix of dwellings and non-domestic buildings or all non-domestic buildings. Addendum 8 should always be ticked where PV panels are present.	Sept 18
9.06	Flue gas heat recovery	Include only if found in PCDB, identified in same way as for heating systems. When the model cannot be found in the PCDB, there is no default option available and the device is not included in the assessment, but its presence should be recorded in site notes.	Sept 18
9.07	Wind turbine	Documentary evidence is required to overwrite default values.	Sept 18

#	Topic	Conventions	Issue date
9.08	Waste water heat recovery	<p>Include only if brand name and model found in the PCDB.</p> <p>When the model cannot be found there is no default option available and the device is not included in the assessment, but its presence should be recorded in site notes.</p> <p>For instantaneous types:</p> <ul style="list-style-type: none"> <li>- The number of rooms with bath and/or shower includes rooms with only an electric shower. If two showers are found in a single room, count as one.</li> <li>- Only mixer showers count for instantaneous waste water heat recovery.</li> </ul> <p>Mixer shower means a shower where the hot water is provided by a boiler (combi or regular), heat pump or immersion heater.</p> <ul style="list-style-type: none"> <li>- The shower must be permanent i.e. not temporarily attached to bath taps when in use.</li> <li>- In the case of a shower that is integral with bath taps, i.e. designed as part of a unit switchable between shower and taps, it is counted as a mixer shower only if there is a shower bracket at least 1.5 m above the plughole and there is a shower curtain or screen present.</li> </ul> <p>For storage types:</p> <ul style="list-style-type: none"> <li>- Record the total number of baths and showers of any type.</li> <li>- Record the total number of baths and showers connected to the waste water heat recovery system.</li> </ul>	Sept 18
9.09	Solar water heating	<p>Documentary evidence is required to overwrite collector or solar store values. Orientation, tilt and overshadowing can be overwritten.</p> <p>If the panel/collector details are available but the solar store information is not, the default values can be used for the solar store.</p> <p>If the solar store is combined and details are being recorded the volume of the combined cylinder must also be recorded.</p> <p>Shower type is required when solar water heating details are known. In this context "electric shower" means a shower where the water is heated by electricity as the shower runs. If the shower is supplied from a hot-water cylinder it is classified as non-electric.</p>	Sept 18
9.10	Hard to treat cavity walls	<p>An <u>access</u> issue is recorded if there is any façade where it is not possible to pitch a 5 metre ladder considering health and safety requirements. This includes e.g. a narrow passageway, a busy thoroughfare next to a building of more than 2 storeys, a conservatory or large outhouse attached to the property, etc.</p> <p>A <u>narrow cavity</u> is indicated by a stretcher bond brick pattern with wall thickness 220 to 250 mm.</p>	Sept 18

#	Topic	Conventions	Issue date
9.11	Transaction type	<p>If more than one transaction type is applicable, seek clarification from the client and in case of doubt select the one nearest the top of the list.</p> <p>“None of the above” should be avoided where possible; the case below should be treated as follows:  “Right to Buy” transactions should be recorded as “Non-marketed sale”</p>	Sept 18
9.12	Tenure	<p>When transaction type is rental, tenure must be rented (social) or rented (private).</p> <p>When transaction type is marketed or non-marketed sale, the tenure will usually be owner-occupied (although there can be exceptions, such as the sale of a property with a sitting tenant).</p> <p>If the property is vacant on the inspection date, try to find out the last tenure and select this e.g. owner occupied, rented (social) or rented (private).</p>	Sept 18
9.13	Electricity meters	<p>Usually the dwelling uses either single-reading meter or a multiple-reading meter arrangement. Older properties may have two single-reading meters to record on-peak and off-peak readings (record as dual meter).</p> <p>If tele-switch or time-switch is present – treat as dual.</p> <p>If choosing a particular tariff, additional information should be gathered such as recent electricity bill.</p>	Sept 18
9.14	Park homes	<p>For the purposes of RdSAP a park home is a pre-fabricated dwelling of modular lightweight construction without its own foundations (although it may sit upon a concrete base) and which is capable of being moved from one place to another.</p> <p>Convention 3.14 applies to U-values. For U-values of existing park homes, documentation obtained from the manufacturer can be used.</p> <p>Park homes have their own set of age bands in SAP Appendix S.</p>	Sept 18

## Appendix 1: Illustrations of roof rooms (see convention 3.11)

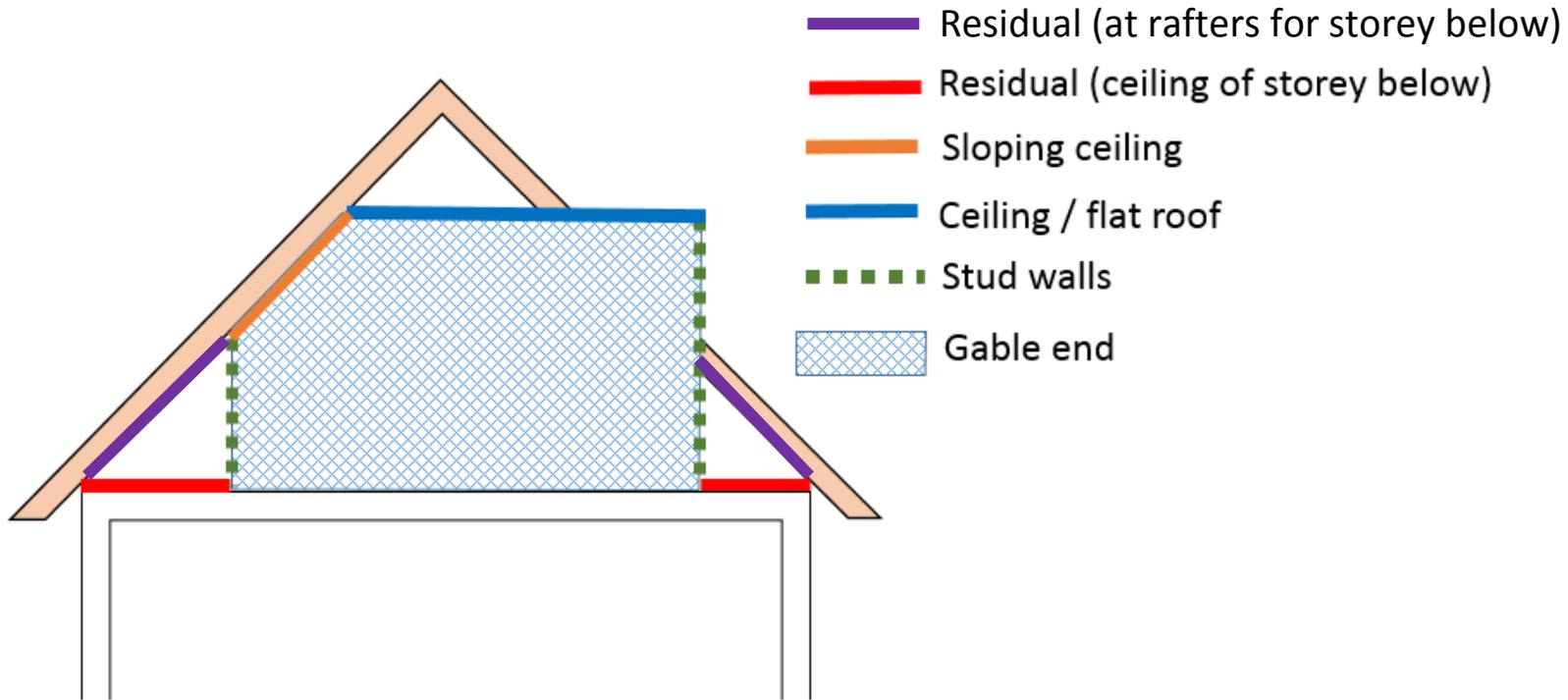
The following are all classified as roof rooms:



Where there is a **common wall**, it is:

- a roof room if the common wall is less than 1.8 m;
- a separate storey if greater or equal to 1.8 m:

Appendix 2: Illustration of the different parts of roof rooms when detailed measurements are made (convention 3.11)



**Revision history**

September 2018	First issue
November 2018	Version 1.1 Amendments Convention 1.01; 3.01 New Convention 3.16