Identification of party wall construction type

Supporting information for use with RdSAP 9.92
What is a party wall?

- A ‘party wall’ or ‘party separating wall’ is the dividing wall between two attached dwellings.
- Many existing party walls have been built with a cavity to reduce sound transmission between the buildings.
- This cavity can allow cold air from outside to circulate and steal heat from adjoining buildings.
How does heat escape through the party wall?

- Cold air enters the uninsulated cavity at exposed edges.
- The cavity creates a chimney effect and cold air rises as it is warmed by heat conducted through the leaves of the wall from adjoining homes.
- This heat ‘bypasses’ the thermal envelope, and is deposited outside and is wasted.
How much heat is being lost?

- **8 years** of research headed by Leeds Metropolitan University, MIMA (Mineral Wool Insulation Manufacturers Trade Association) and Knauf Insulation has monitored the real performance of existing homes and quantified heat lost through party walls.

- Savings can be up to approximately £70-£90 p.a *(dependent on property)*

- Across all affected homes, the BRE estimate this could equate to £465million savings on fuel bills if all homes were insulated

![Image](£465m and 2.5m tonnes of CO₂ could be saved each year)

![Image](5 million+ homes affected)
How is a party cavity wall identified?

- In the living space of the dwelling, the party wall will likely be covered by a decoration layer (e.g. wallpaper, paint or tiling)
- The best way to identify the party wall construction is by looking at the brick or block bonds in the loft
What are the common types of party wall?

- Cavity wall in brickwork
- Cavity wall in blockwork
- Solid wall in brickwork (solid above cavity)
- Solid wall in brickwork
- Solid wall in blockwork (laid flat)
- Solid wall in blockwork (with transition)
What are the common types of party wall?

**Cavity in brickwork**

- May be suitable for insulation

- **Identification**: stretcher bond in standard brickwork

- **RdSAP 9.92 input**:  
  - If there are no visible holes where the wall has already been insulated, select ‘unfilled cavity wall’
  
  - If there are visible holes where the wall has already been insulated, select ‘insulated cavity wall’
What are the common types of party wall?

Cavity in brickwork

• May be suitable for insulation

• **Identification:** stretcher bond in standard brickwork

• **RdSAP 9.92 input:**
  
  o If there are no visible holes where the wall has already been insulated, select ‘unfilled cavity wall’
  
  o If there are visible holes where the wall has already been insulated, select ‘insulated cavity wall’
What are the common types of party wall?

Cavity in blockwork

• May be suitable for insulation

• **Identification:** stretcher bond in blockwork

• **RdSAP 9.92 input:**
  
  • If there are no visible holes where the wall has already been insulated, select ‘unfilled cavity wall’

  • If there are visible holes where the wall has already been insulated, select ‘insulated cavity wall’
What are the common types of party wall?

Cavity in blockwork

• May be suitable for insulation

• **Identification:** stretcher bond in blockwork

• **RdSAP 9.92 input:**
  
  o If there are no visible holes where the wall has already been insulated, select ‘unfilled cavity wall’
  
  o If there are visible holes where the wall has already been insulated, select ‘insulated cavity wall’
What are the common types of party wall?

Solid wall in brickwork (solid above cavity)

- May be suitable for insulation\(^{(i)}\)

- **Identification**: Header bond PLUS a step may be visible above roof joist level or at mid-way in the wall height where the construction changes.

- **RdSAP 9.92 input**:
  - Select ‘solid wall’
  
  \(^{i}\) The cavity in this type of party wall extends only up to the floor of the loft space, above this point the wall is of solid construction. At the time of writing, the savings provided by insulating this type of party wall had not been quantified.
What are the common types of party wall?

Solid wall in brickwork (solid above cavity)

• May be suitable for insulation

• **Identification**: Header bond PLUS a step may be visible above roof joist level or at mid-way in the wall height where the construction changes.

• **RdSAP 9.92 input**:
  
  o Select ‘solid wall’

  i. *The cavity in this type of party wall extends only up to the floor of the loft space, above this point the wall is of solid construction. At the time of writing, the savings provided by insulating this type of party wall had not been quantified.*
What are the common types of party wall?

Solid wall in brickwork

• Not suitable for insulation

• **Identification:** Header bond in standard brickwork

• **RdSAP 9.92 input:**
  o Select ‘solid wall’
What are the common types of party wall?

Solid wall in brickwork

- Not suitable for insulation
- **Identification:** Header bond in standard brickwork
- **RdSAP 9.92 input:**
  - Select ‘solid wall’
What are the common types of party wall?

Solid wall in blockwork (laid flat)

- Not suitable for insulation
- **Identification:** Blockwork but evident that blocks are laid flat
- **RdSAP 9.92 input:**
  - Select ‘solid wall’
What are the common types of party wall?

Solid wall in blockwork (with transition)

- Not suitable for insulation
- **Identification**: A step is usually visible 300mm above roof joist level where the construction changes
- **RdSAP 9.92 input**:
  - Select ‘solid wall’
How is the wall insulated?

Supafil Party Wall

• Supafil Party Wall has been developed specifically for the insulation of party walls

• Specific installation methodology has been developed for existing homes

• Installation can be carried out from either
  o inside the home *(good for void properties)* or
  o from outside the home and from inside the loft *(good for occupied properties)*

• Installed by trained and approved installing technicians

• Eligible for funding under the Energy Company Obligation
Contact details

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