In April 2006 the government made major changes to a section of the Building Regulations concerned with energy conservation and in October 2010 further amendments were made. These changes were designed to help combat climate change and reduce energy waste in buildings.

One of the changes was to introduce new requirements that would apply when a Thermal Element was to be renovated or replaced.

Requirements relating to thermal elements – Regulation 23

(1) Where a person intends to renovate a thermal element, such work shall be carried out as is necessary to ensure that the requirements of paragraph L1(a)(i) of Schedule 1.

(2) Where a thermal element is replaced, the new thermal element shall comply with the requirements of paragraph L1(a)(i) of schedule 1.

Schedule 1 – Part L Conservation of fuel and power

L1. Reasonable provision shall be made for the conservation of fuel and power in buildings by:

(a) limiting heat gains and losses –

(i) through thermal elements and other parts of the building fabric.

PLEASE NOTE
Building work may require other permissions, including Planning Permission.

For further information:

Website:
www.oadby-wigston.gov.uk

Telephone:
(0116) 2888961

E-mail:
buildingcontrol@oadby-wigston.gov.uk

or write to:
Building Control Section,
Oadby & Wigston Borough Council,
Council Offices,
Station Road,
WIGSTON,
Leicestershire,
LE18 2DR.
What is a Thermal Element?

A Thermal Element is a roof, wall or floor which separates a thermally conditioned (heated or cooled) space from any of the following:

- The outside (including the ground), or
- An unheated part of the same building, or
- A structure exempt from the building regulations, such as porch or conservatory; or
- Part of the same building heated or cooled to a different temperature.

Renovation of a Thermal Element means adding a new layer to a Thermal Element or the replacement of an existing layer. When the renovation is to more than 50 per cent of the surface of the individual element or 25 per cent of the total of the building envelope, Building Regulations approval will be required prior to carrying out the work and the Thermal Element may require upgrading to provide more insulation.

Note: The area of the element should be interpreted in the context of whether the element is being renovated from inside or outside, e.g. if removing all the plaster finish from the inside of a solid brick wall, the area of the element is the area of external wall in the room. If removing external render, it is the area of the elevation in which that wall sits.

The consequence of this change is that much building work, previously exempt from the Building Regulations as it was considered a repair, may now require approval.

For example:-

- Replacement of a slate or tiled roof covering even if like for like;
- Re-plastering of a wall;
- Replacement of felt on a flat roof;
- Renewal of a ceiling below a cold loft space;
- External rendering or re-rendering of a wall;
- Renewal of cladding to a dormer;
- Renovation of a ground floor involving replacement of screed or timber decking.

What do we need to do?

Applications for such works must be submitted before works start.

A fee will be levied for such works and will vary based on the estimated cost of works for the number of thermal elements involved. The application may be submitted using the Building Notice procedure for domestic premises.

What regulations apply?

Further guidance on this is available in Approved Document L1B for dwellings and L2B for other buildings on the Building Regulations section of the Planning Portal website, covering:

- Changes to the Building Regulations;
- Guidance on thermal elements;
- Explanation of when renovation works trigger requirement for upgrading insulation and what additional work may be required. You should fully consult the Regulations and the Approved Document and, if you are in any doubt, seek advice before commencing work.

The definition of a thermal element does not include windows, doors, roof windows or rooflights. These are referred to as a controlled fitting within the Regulations. Please see our leaflet on Replacement windows, doors and Roof-lights.

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**Table 3 Upgrading retained thermal elements**

<table>
<thead>
<tr>
<th>Element</th>
<th>U-value W/m²K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wall - cavity insulation</td>
<td>0.55</td>
</tr>
<tr>
<td>Wall - external or internal insulation</td>
<td>0.30</td>
</tr>
<tr>
<td>Floor</td>
<td>0.25</td>
</tr>
<tr>
<td>Pitched Roof - insulation ceiling level</td>
<td>0.16</td>
</tr>
<tr>
<td>Pitched roof - insulation between rafters</td>
<td>0.18</td>
</tr>
<tr>
<td>Flat roof or roof with integral insulation</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Table 3 has been reproduced from Approved Document L1B for further details please refer to the document.

Fig.1. Above is an example of how a wall could be insulated.