

Report from Addingham Environment Group

May 2022

Summary of Thermal Imaging Camera (TIC) Visits

37 visits have been completed by Ian Viner and David Bartlett. Properties visited range from 19th century terraced to modern detached houses and include recent (2021) extensions. Most visits have taken approximately one hour. It is considered that the ambient temperature is now too high for further visits. It was suggested at the end of the last visit (3 May 2022) that they should have another visit when the temperature fell at the end of the year.

The majority of visits have identified that additional insulation measures might be applied to some opening windows. Many external doors would benefit from similar measures, particularly at floor level where either brush attachments or fabric sausages would prevent the ingress of cold air. Other areas for concern included cat/dog flaps and some letter boxes.

Cold spots have also been identified where floor meets skirting board, especially on the ground floor. There was one case where this gap had been filled with a silicon material prior to having a new fitted carpet - it was an extremely effective measure.

Many houses also had cold spots where pipes went through the walls and the gap had not been adequately filled, this happened most frequently in the “cupboard under the kitchen sink”. A cold area was discovered in one house - the owner explained that he had drilled a hole through the wall, to allow a cable to operate Christmas lights in the garden, and had forgotten to fill it. He was most impressed that the camera had identified it.

Attic/loft spaces have all been well insulated but not necessarily to the current recommended 300mm depth. There has been some evidence of dislodged or missing patches of insulation. There was some concern from people who had boarding over the insulation. It is possible to install ‘feet’ on the joists to raise the boarding and thus prevent the insulation from being compressed. Although this might be considered for a new installation it would not appear to be feasible for a retro-fit. It is reasoned that boarding on top of slightly compressed insulation is probably as thermally effective as insulation alone, especially when the stored material on top of the boarding is taken into account. Some loft hatches would benefit from being better insulated.

First floor dormer windows are often cold spots. It is reasoned that ceilings and external walls are not adequately insulated but only exploratory procedures could determine the actual reason. This is particularly noticeable where the outside wall is angled and clad in tiles. Interestingly a recent article in the Times (Bricks & Mortar, 4 February 2022) reported a similar case. A householder had a cold front bedroom, he borrowed a thermal imaging camera from

Octopus Energy which indicated a significantly colder outside wall. He discovered that there was nothing between the internal plasterboard wall and the outside tiles. A local builder removed the plasterboard and inserted insulation board into the void.

There were very few houses with open fires. When not lit they can create significant draughts, which when coupled with less than air-tight windows and doors, strongly affected the 'thermal comfort' in a room. It was suggested that homeowners could research 'chimney balloons' and 'chimney sheep' as a means of increasing the thermal comfort.

Cellars, generally in older house, have been another area of concern. Typically these contain redundant coal holes, most often in a state of semi-dereliction, which allow a great deal of cold air to enter. Apart from restoring/closing up these features, attention was also directed to investigating the insulation of cellar ceilings.

Other energy efficient measures discussed include: closing internal doors, adjusting central heating boiler controls and changing radiator valves to lower settings in bedrooms which are used infrequently.

The ambient temperature is now too high to provide an adequate contrast for TIC visits, and resumption of visits should be later in the year when outside temperatures have fallen sufficiently.

Very few major problems have been identified and as the TIC visit brief has been one of identification rather than advice, conversations regarding solutions have been of the " You might ask your builder what he thinks about X or you might research the efficacy of Y". Many homeowners visited have been reassured that the measures they have already taken to insulate their houses have proven successful. They have been grateful to the Addingham Environment Group for organizing and conducting the thermal imaging camera visits. However, several times it has been necessary to emphasize that we are volunteers and not offering any further energy efficiency goods or services.

6 May 2022