**Thermal Imaging Advice** - *from Greener Peasenhall*

**1. Advice for setting up.**

**Get the camera working**

General advice, since you may have different cameras, and maybe using a phone [Android, Apple] or tablet.

You need to download the software / app online, first. There is a Flir app but others may work.

Plugging the camera in, generally starts the process, but experience shows that Apple has fewer hickups. Android – take the case off the phone, since the camera ‘plug’ has to penetrate the phone sufficiently. The camera can be wobbly, and the connection therefore variable. Some of us used some large rubber bands to hold it firm [one either side of the camera, up over the top of your phone].

When the camera/phone is set up you will see a ‘colourful’ representation of your subject. If you wish to be able to read off *actual* temperatures, you will have to investigate ‘calibrating’ the display. If you are not interested in *actual* temperatures, but *relative* temperatures [which is quite sufficient] then the calibration may not be necessary.

**practice first**

Try this out on your own home first! Note that the displays will be clearer when there is a temperature differential between inside and outside – do it on a cold day/night, and have the central heating on full for a couple of hours beforehand.

Ensure you are aware of the colour significance – white is hot / heat escaping, and blue is cold/cool. Other colours in between.

Ensure you know how to use the software/app to take a photo and store it.

* Take a photo of your radiators [on an external wall] – one from the inside of the room, and one of the radiator from the outside of the house. Poor wall insulation will enable you to see some ‘heat’ coming through the wall to the outdoors.
* Take photos of your windows – look for cold edges where draughts may be sighted. Try a photo from outdoors, one with the curtains open and one closed. Any difference? Double glazed windows may make you think they are insulated, but you may find out that a curtain is efficacious.
* Take photos of the upstairs ceilings. If you can see light [or even bright] blue lines, then these are the joists, and it suggests the loft insulation is inadequate.
* Look at the walls. Depending on the age and construction of the house, you may see ‘evidence’ of hidden overbuilt doors/windows. You can sometimes see where the cavity insulation is inadequately / unevenly filled.
* Hot tanks and boilers usually have some insulation built in, but is it adequate? Depending where they are sited, does the leaking heat help warm your room or does it leak heat to the outside [especially important for external boilers]?
* Similarly you can scan the floors to locate hot water pipes, which should be insulated.
* This is a rare observation, but scans of electrical sockets/switches, wiring and fuseboxes can indicate faulty wiring and potential fire risks.

**On the day**

If you have practised [as above] you will be confident in knowing what to look for, and photograph.

Clients who only want you to scan the outside will lose the benefits of an internal scan, with insights into construction and internal insulation.

What happens on the day, and how long it takes, is dependant on how you have advertised this inspection, how much access you get to the property, your confidence on construction methods in houses and their plumbing/electrics.

My own view is that the image inspection is a precursor to a discussion with the client about the condition of their house ‘insulation’, the potential financial savings for the client [and information about grants available – see Groundworks East], and the need to prepare for net-zero targets / climate change. Note; insulation against cold in winter equals insulation against excessive heat in summer.

**2. Promoting the project in your village**

We all have our own channels – emails and village news, social media.

In motivating potential clients, I would emphasise

* potential for saving client’s money – insulation and draught sealing, fuel costs
* potential for identifying priorities in improving Home Efficiency ratings – which could result in raising their resale value
* potential for identifying electrical ‘weaknesses’
* consultation on how net zero targets and climate change may affect their house.

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