



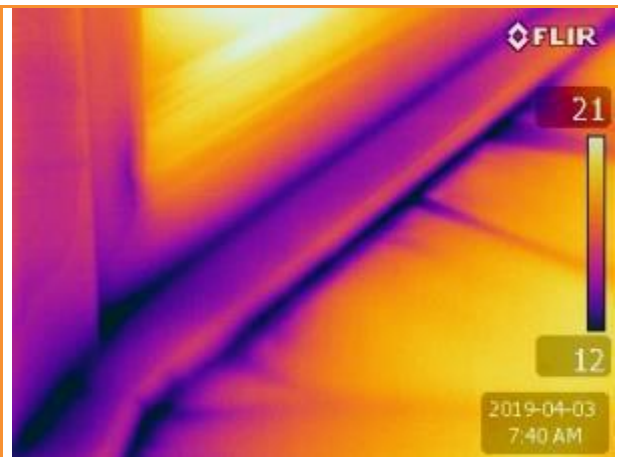
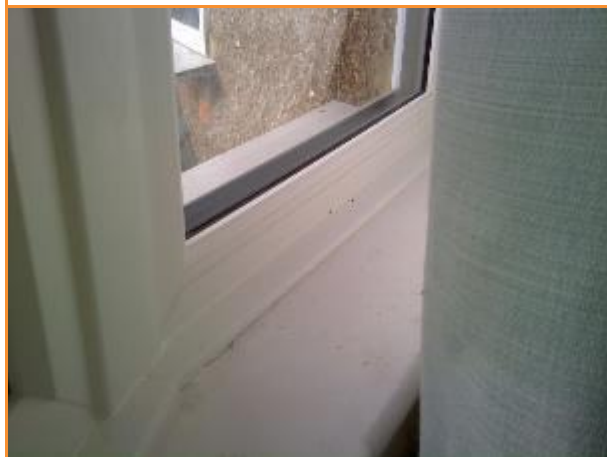
## Common Leakage Sites no.2

### **Beneath inner window sills and around window frames.**

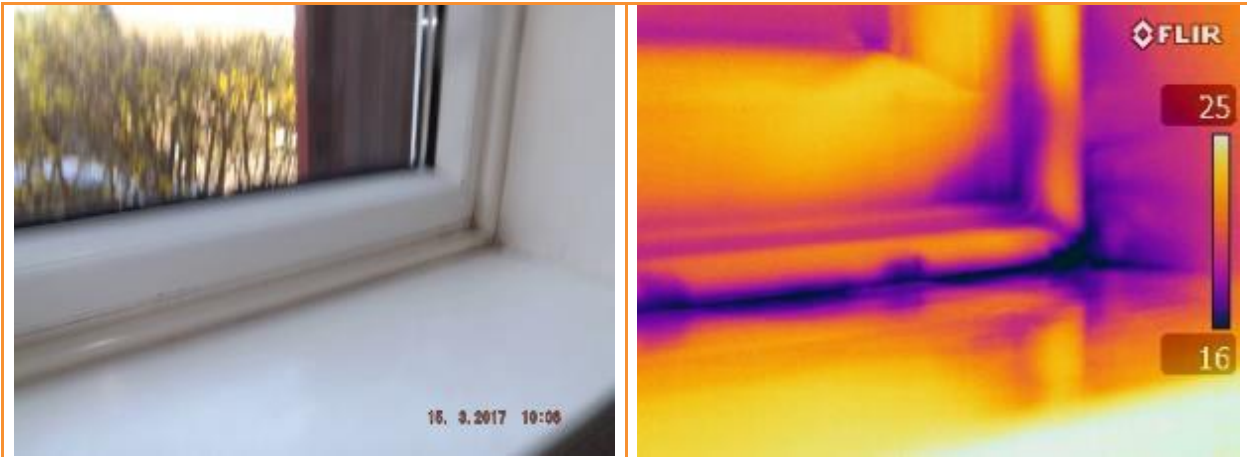


In this instance air is leaking either from an unheated wall cavity or direct from the outside into the room through gaps around the windows. This may be where replacement windows have been badly sealed back to the surrounding building fabric. Alternatively, leakage may be due to building movement, or perhaps moisture damage to timber windows, so that the sealing has failed around older windows.

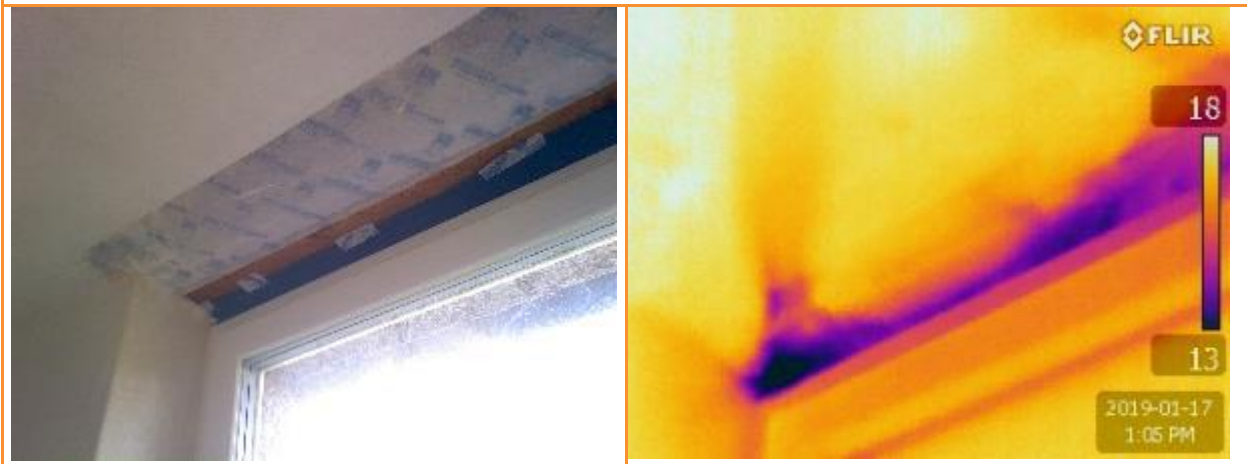
**Building Fabric Leakage 2: Beneath window cills and around window frames**



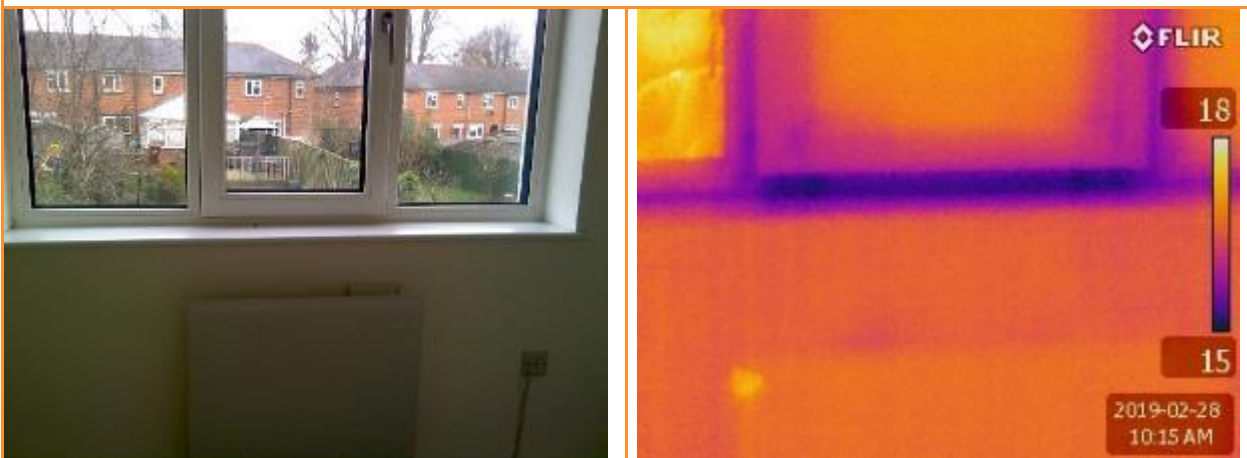
**2.01: Internal thermographic image whilst house is depressurised showing leakage across base of windows, also between back edge of sill and bottom of frame.**



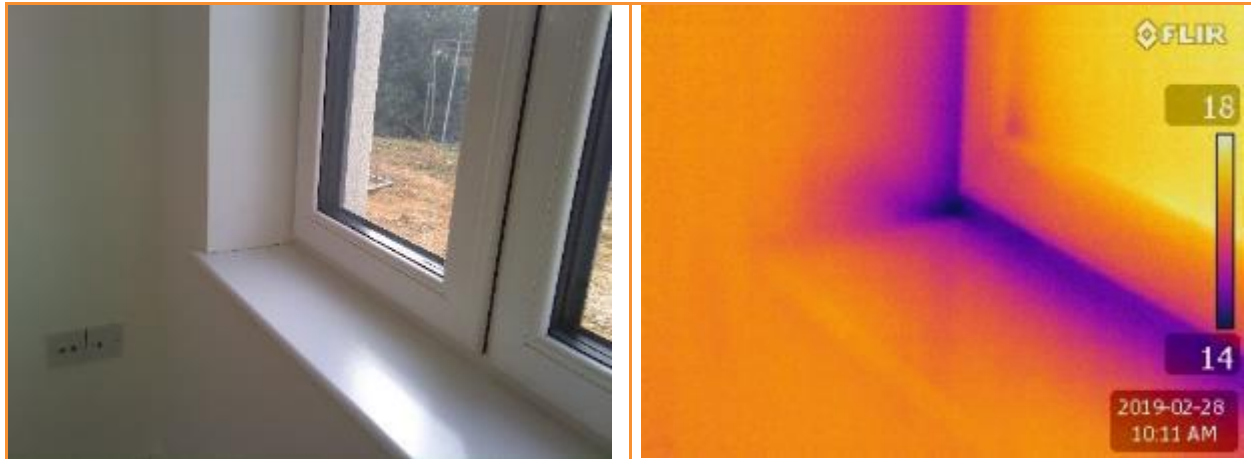
**2.02: Internal thermographic image whilst house is depressurised showing leakage around existing window.**



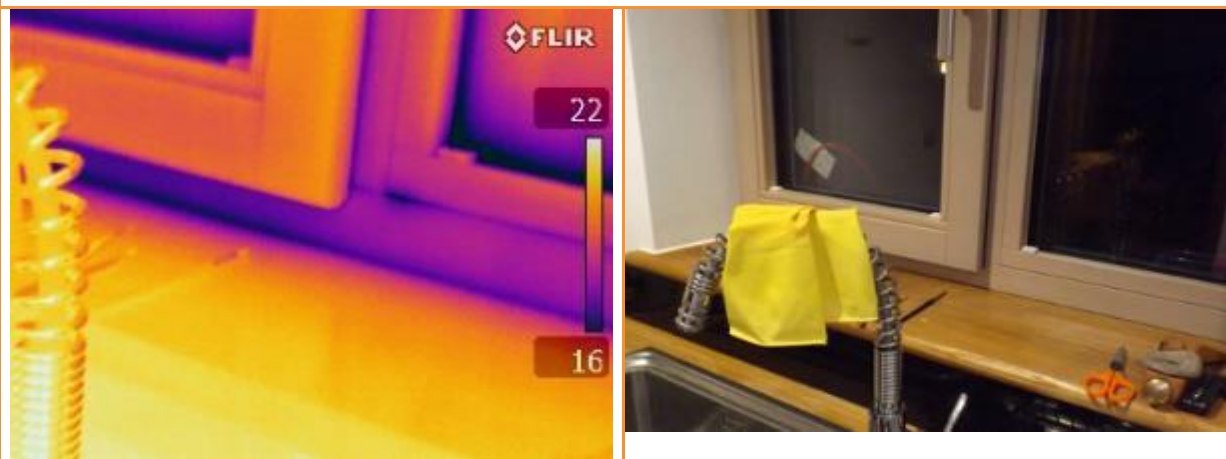
**2.03: Internal thermographic image whilst house being renovated is depressurised, showing leakage at top of bedroom window where sealing is unfinished.**



**2.04: Internal thermographic image whilst house is depressurised showing leakage across base of opening light in bedroom window.**



**2.05: Internal thermographic image whilst house is depressurised showing leakage at bottom corner of first floor window.**

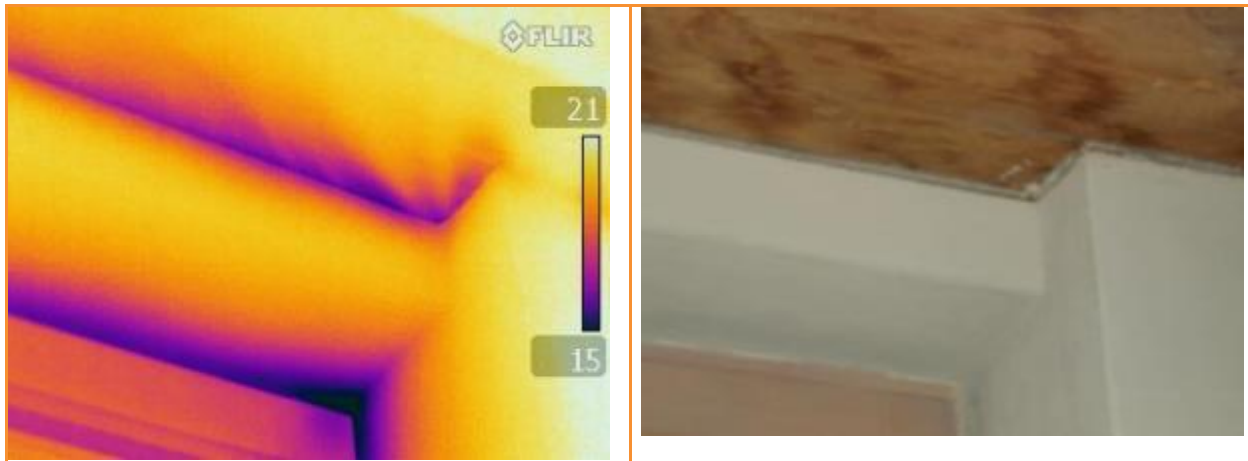


**2.06: Internal thermographic image whilst dwelling is depressurised showing leakage along back edge of window sill in kitchen.**



**2.07: Internal thermographic image whilst dwelling is depressurised showing leakage at lower corner of opening.**

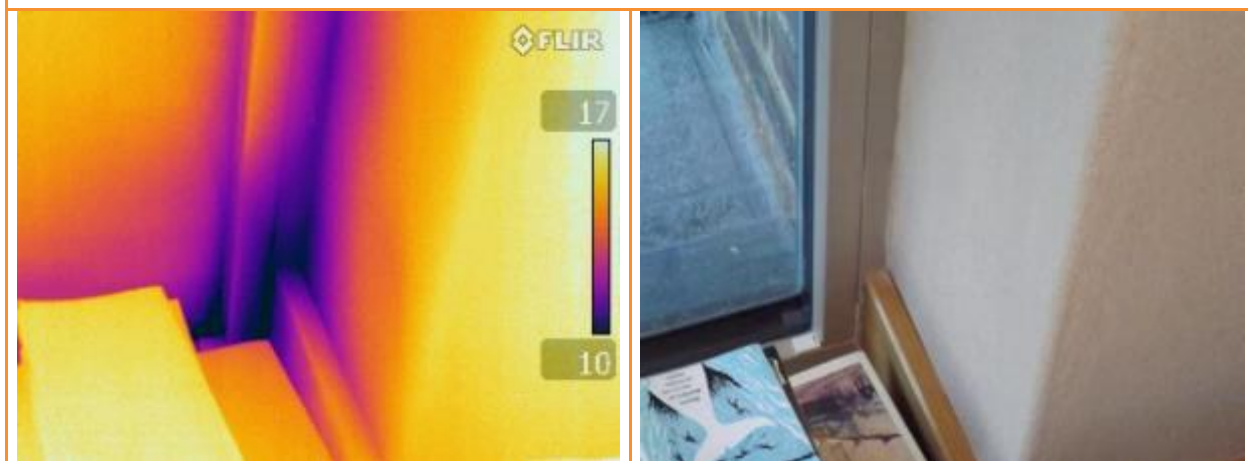




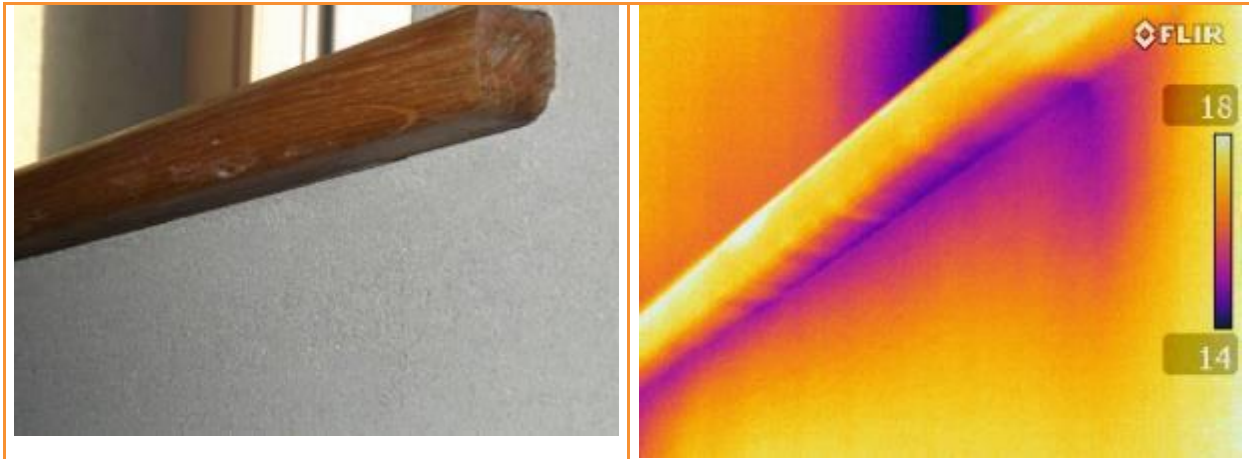
2.08: Internal thermographic image whilst dwelling is depressurised showing leakage around window.



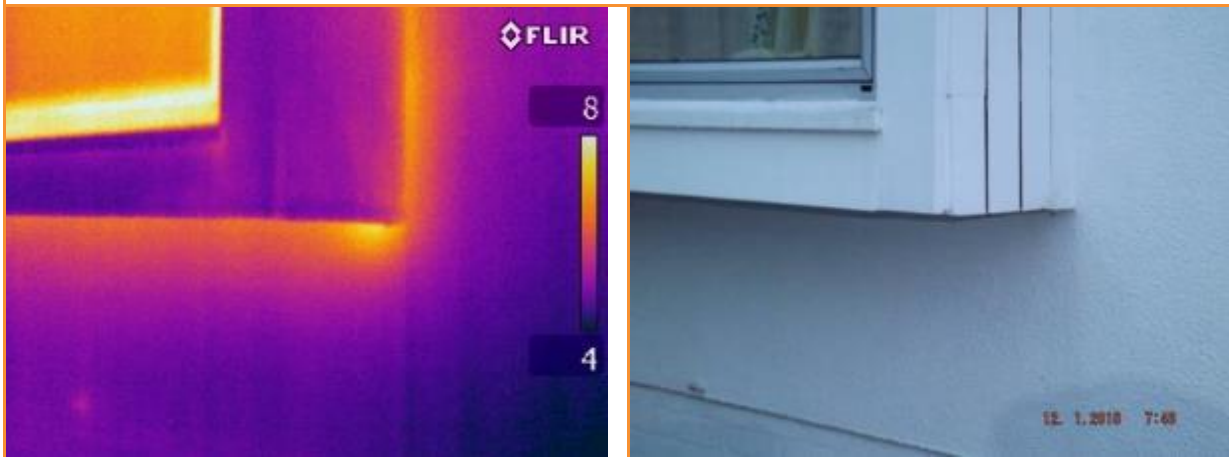
2.09: Internal thermographic image whilst dwelling is depressurised showing leakage down the side of a window frame.



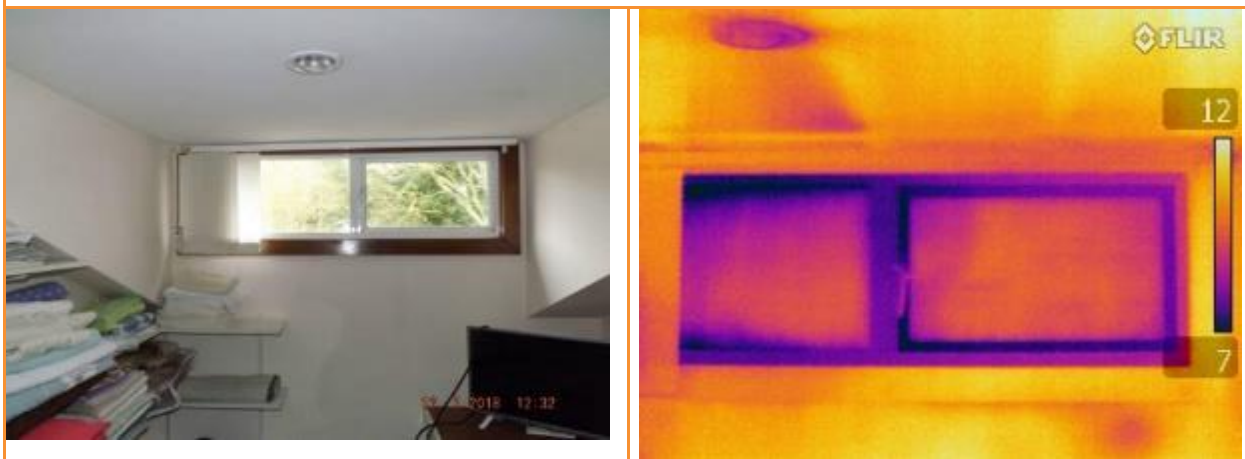
2.10: Internal thermographic image whilst dwelling is depressurised showing leakage showing leakage around skirting board at side of window.



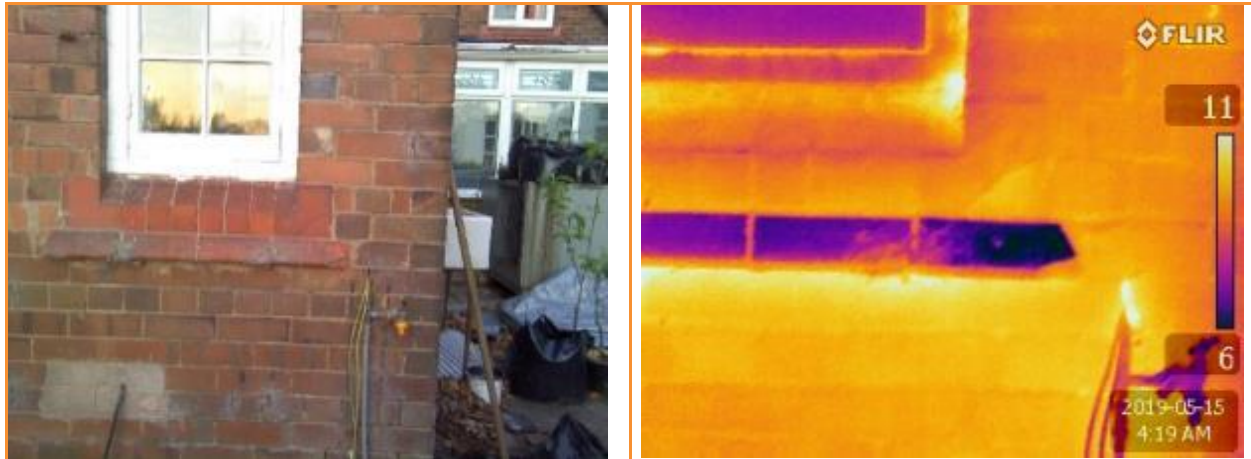
**2.11: Internal thermographic image whilst dwelling is depressurised showing leakage along underside of window sill.**



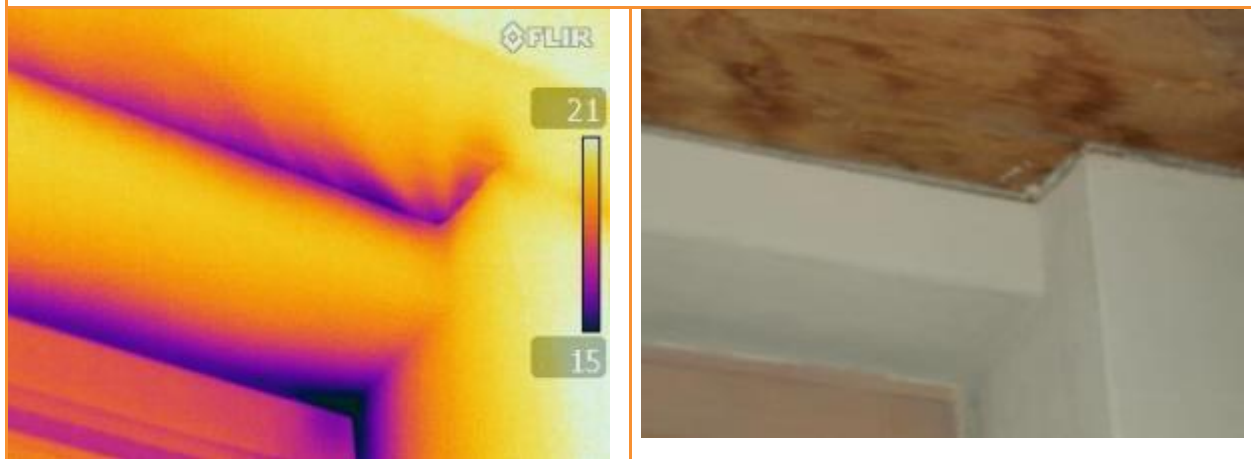
**2.12: External thermographic image whilst house is pressurised showing leakage around projecting window, particularly at bottom corner.**



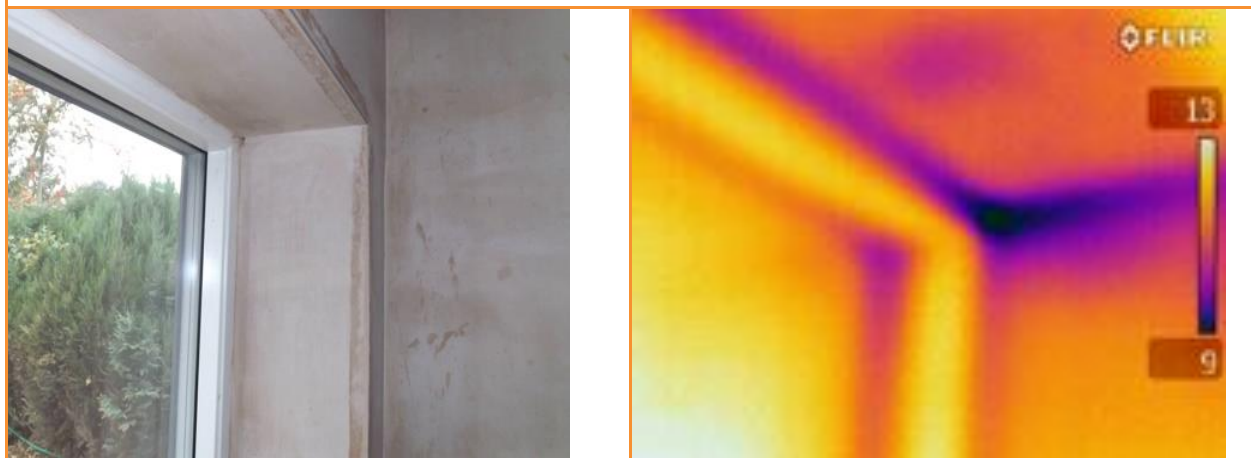
**2.13: Internal thermographic image whilst house is depressurised showing leakage around top floor dormer window.**



**2.14: External thermographic image whilst house is pressurised showing leakage at bottom corner of window opening.**



**2.15: Internal thermographic image whilst dwelling is depressurised showing leakage around window opening.**

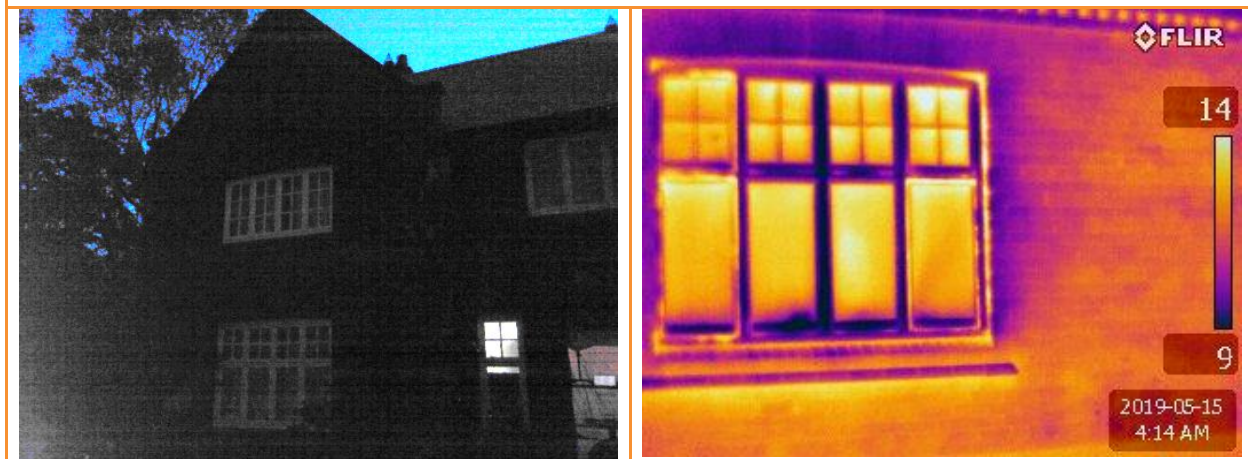


**2.16: Internal thermographic image whilst dwelling is depressurised showing leakage at top corner of window opening.**





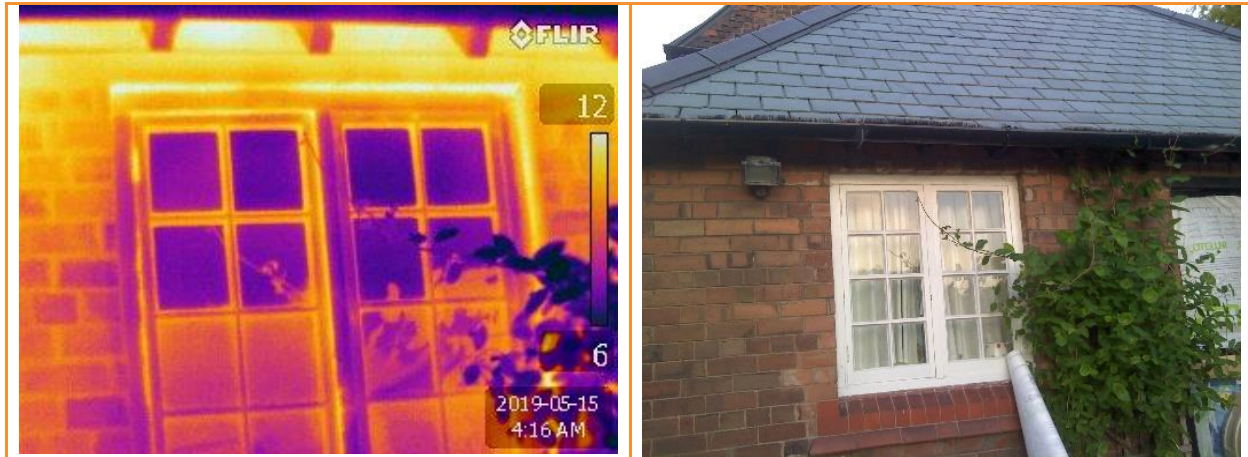
**2.17: External thermographic image whilst house pressurised showing leakage around the opening window but also between the window frame and the wall above**



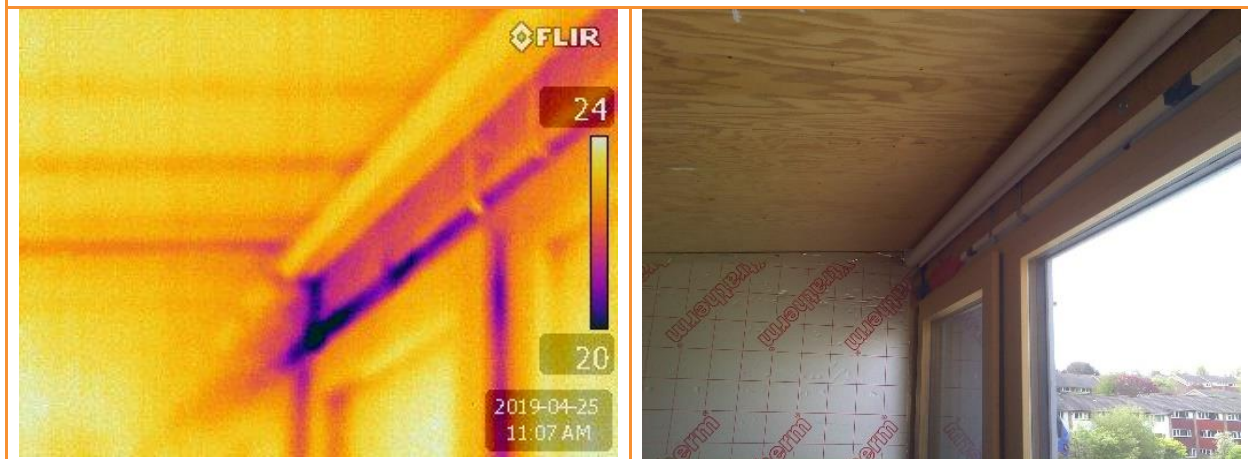
**2.18 External thermographic image whilst house is pressurised showing leakage around the lower window frame in numerous different places**



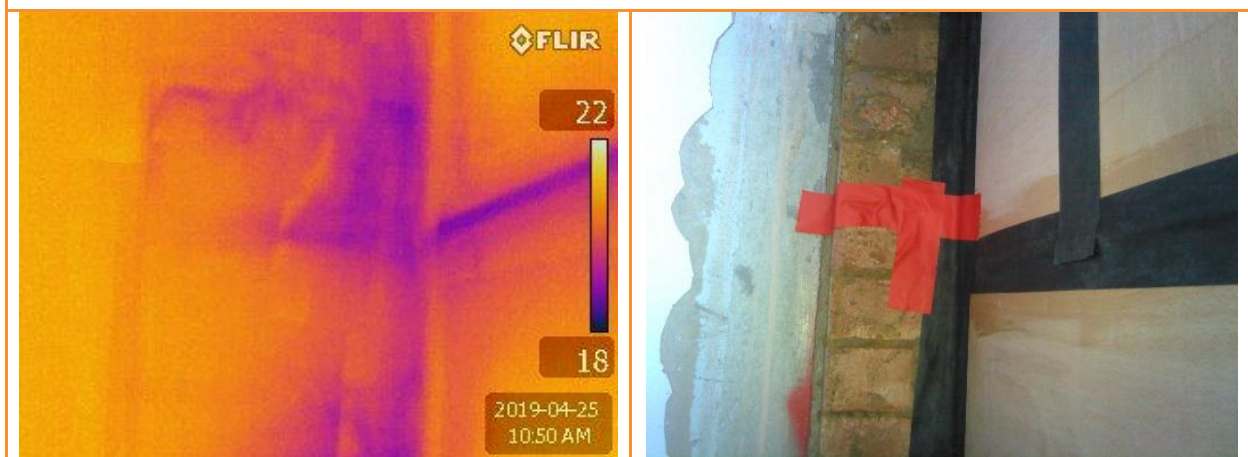
**2.19: External thermographic image whilst house pressurised, showing leakage around upper right front window. Also, eaves leakage and leakage under brick detail visible**



**2.20: External thermographic image whilst house pressurised, showing leakage around rear window. Also, substantial eaves leakage visible**

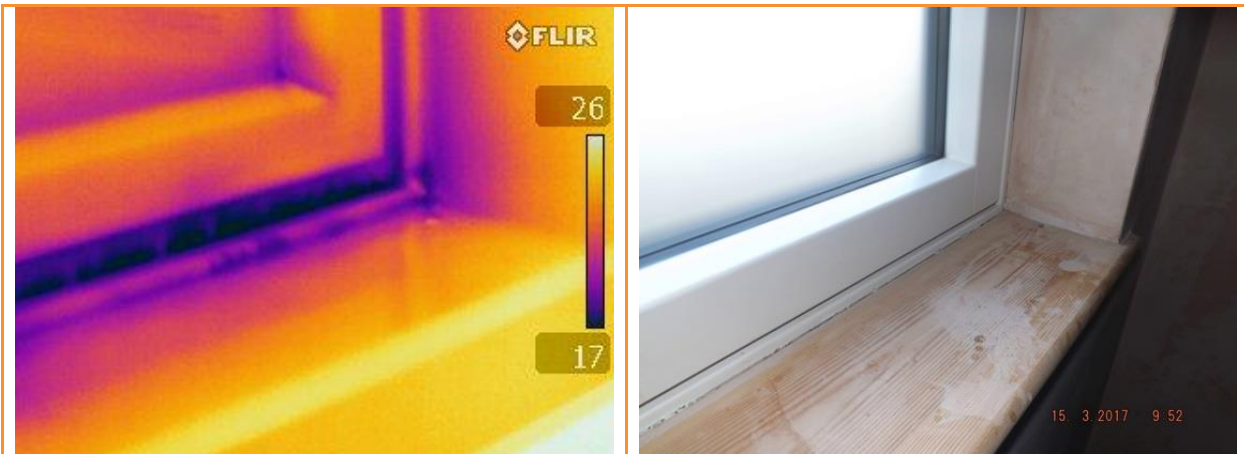


**2.21: Thermographic image whilst house depressurised, showing substantial leakage across top of upper opening, also apparent between windows and in the corner where the external wall meets the return**

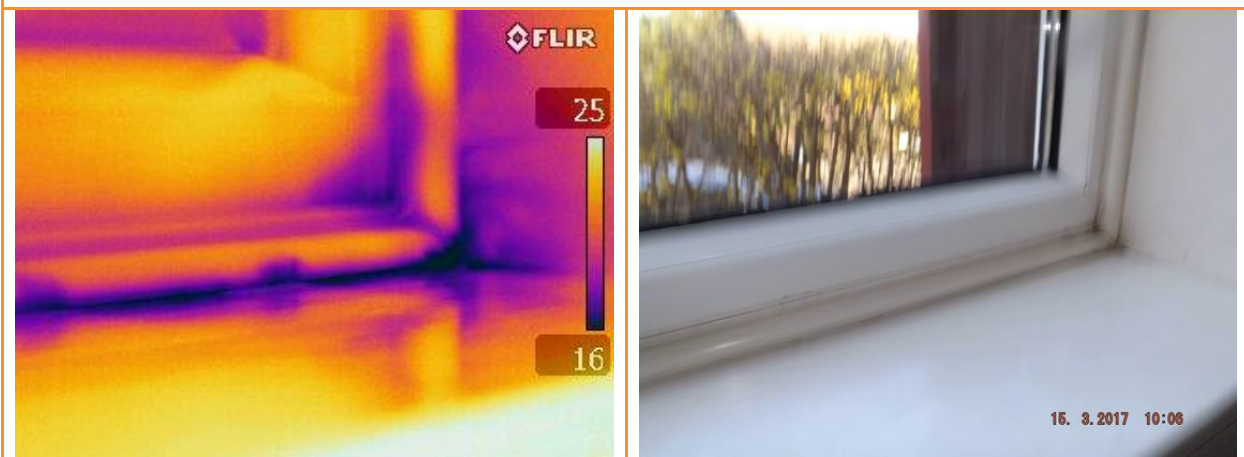


**2.22: Thermographic image showing leakage both at the side of and beneath the window frame**

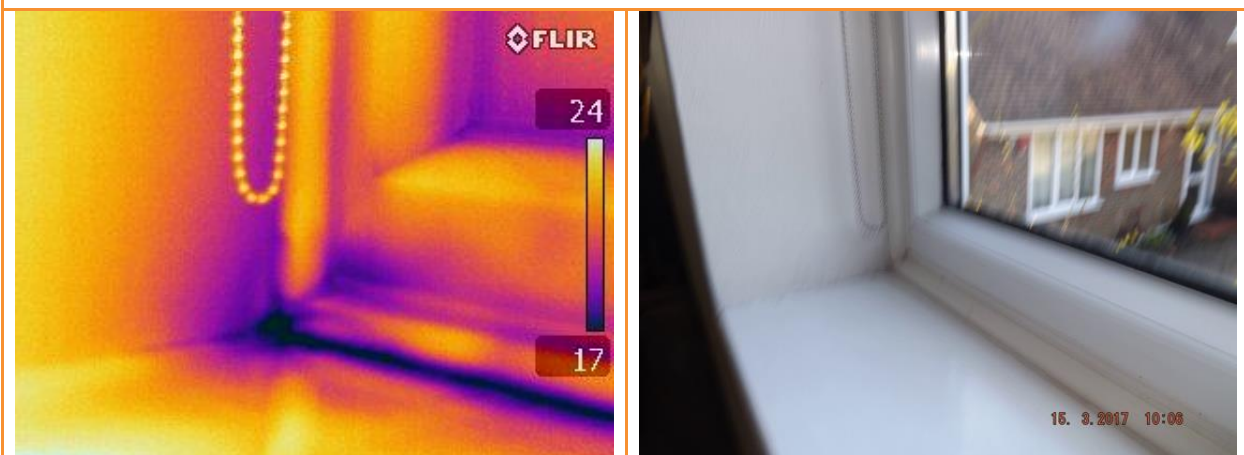




**2.23: Thermographic image of leakage across back edge of window sill and where window leaking along bottom draughtseals**



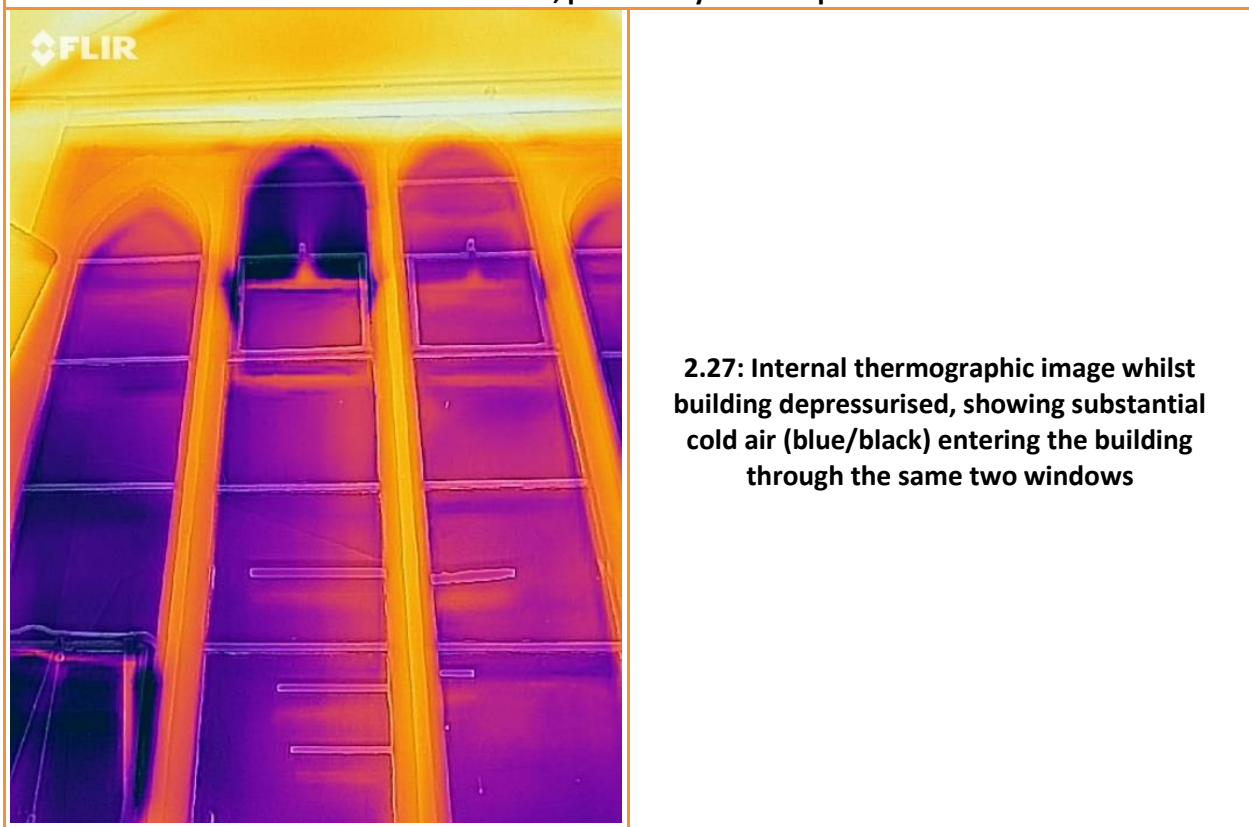
**2.24: Thermographic image illustrating leakage along bottom edge of older windows**



**2.25: Thermographic image of leakage along bottom edge of older windows**

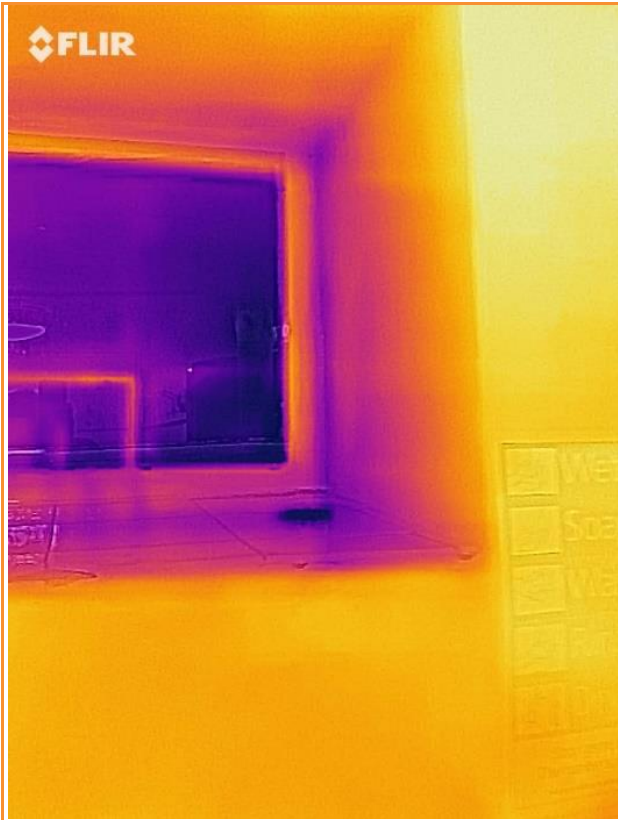


**2.26: External thermographic image whilst building pressurised, showing substantial warm air (white/yellow) escaping the building through two windows that don't close properly. Yellow line around the outside of the windows also suggests leakage between the windows and the adjoining stonework, particularly at the top**



**2.27: Internal thermographic image whilst building depressurised, showing substantial cold air (blue/black) entering the building through the same two windows**

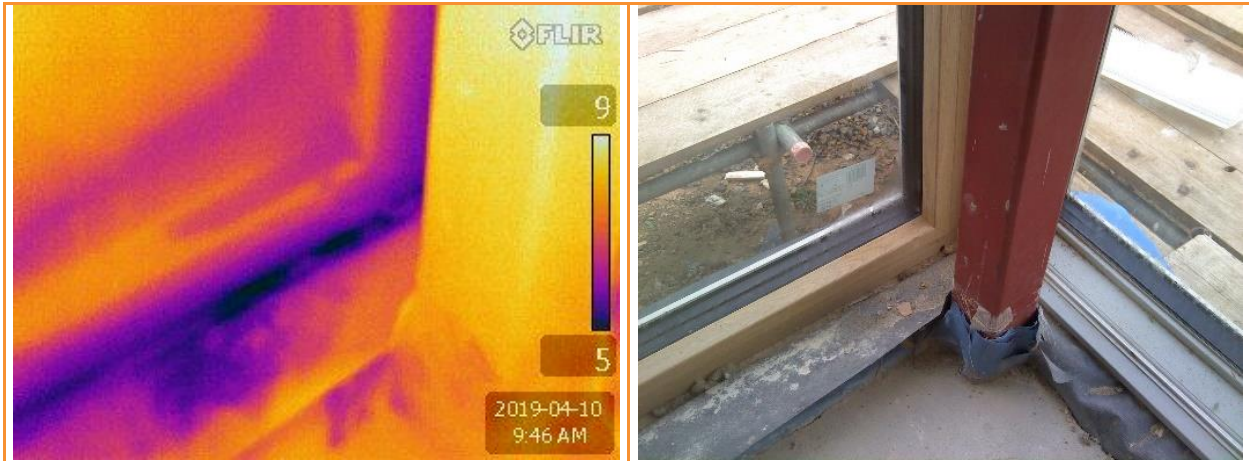




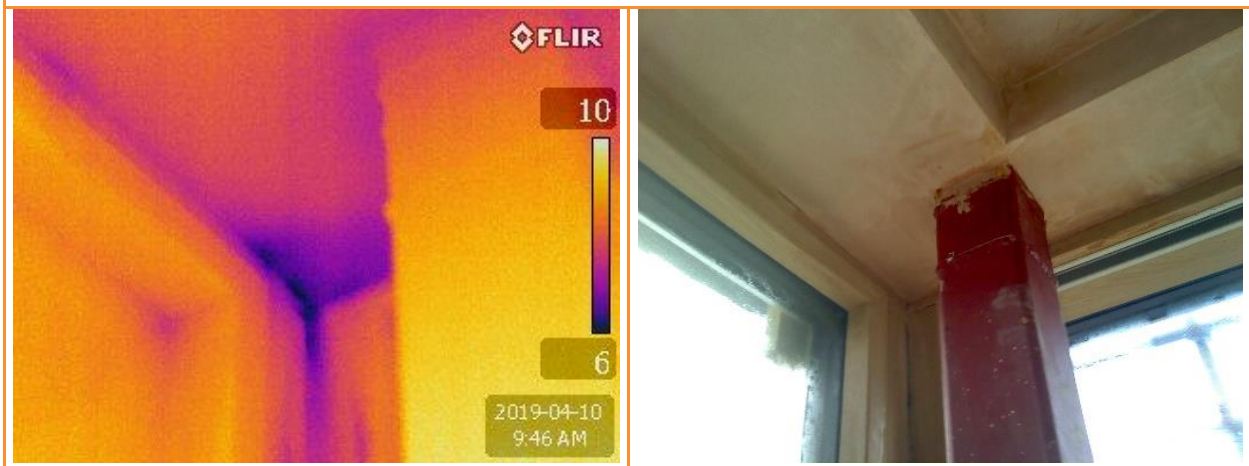
**2.28: Internal thermographic image while building depressurised showing leakage of cold air (blue/black) around window in ladies' toilet. Particular leakage visible through a hole beneath the bottom right of the frame**



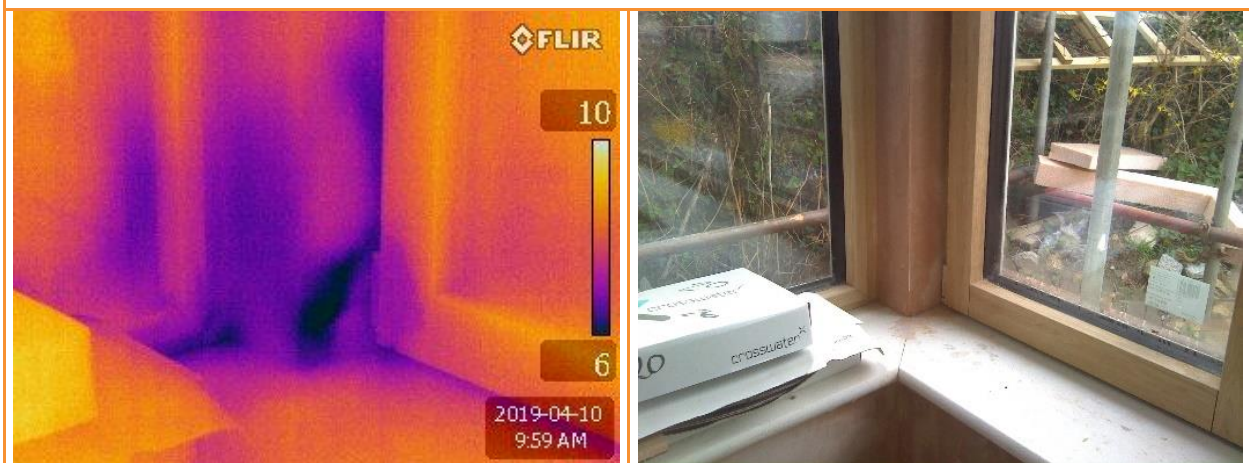
**2.29: External thermographic image while building is pressurised showing leakage of warm air (yellow) at side and top of window in gents' toilet.**



**2.30: Thermographic image showing substantial leakage under base of window in corner of lounge**

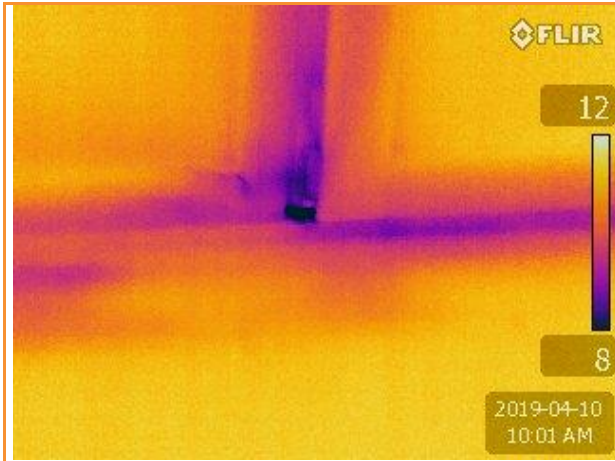


**2.31: Thermographic image showing significant leakage at top of corner window in lounge**

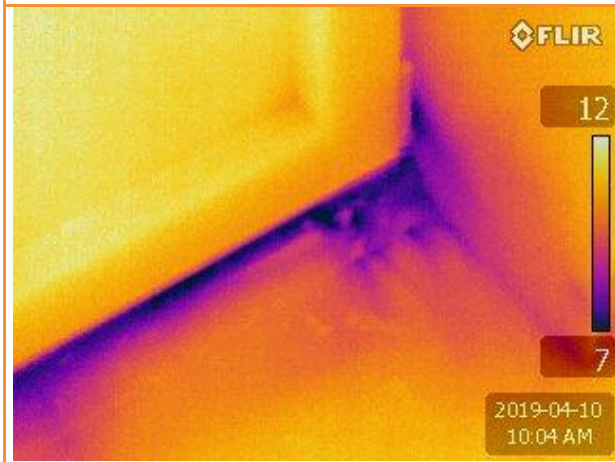


**2.32: Thermographic image showing substantial leakage at corner joint between windows in the first floor bedroom**

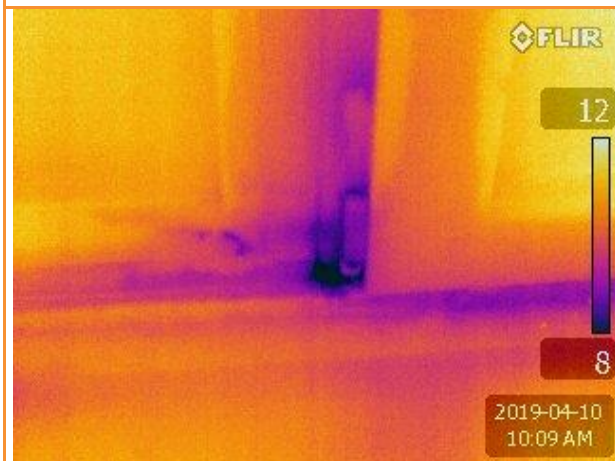




**2.33: Thermographic image showing leakage through hole at base of joint between sections of window, first floor rear**



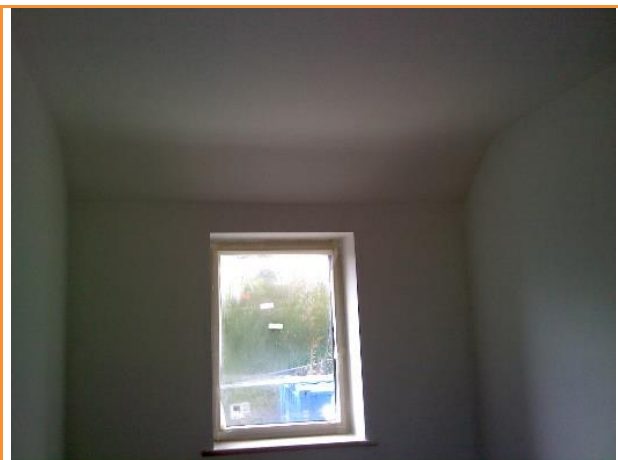
**2.34: Thermographic image showing leakage occurring near the bottom left corner of the rear bedroom windows, first floor**



**2.35: Thermographic image showing leakage around lower hinge of first floor window**



**2.36: Thermographic image showing leakage at head of first floor window**

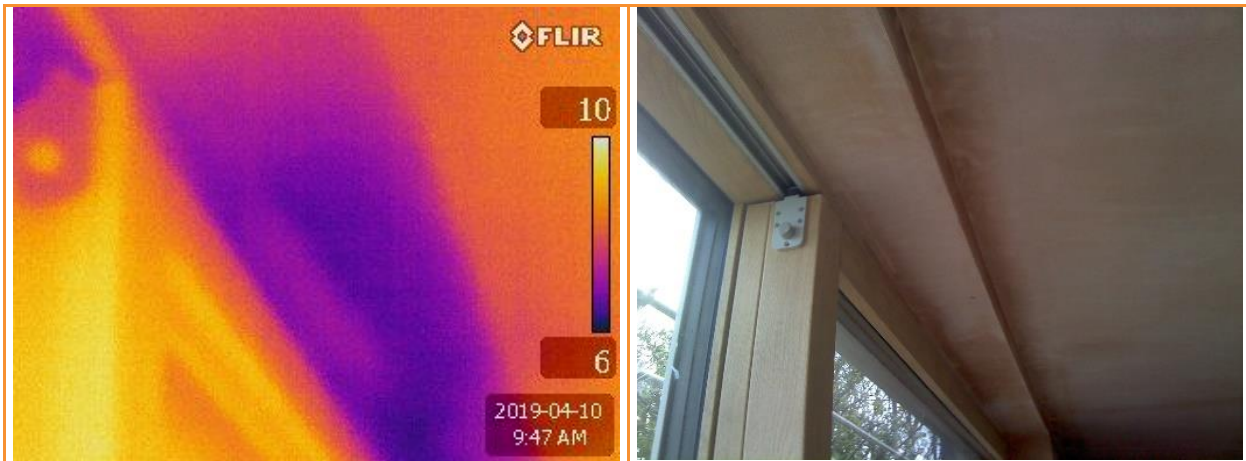


**2.37: Thermographic image showing leakage across top of stairwell window**

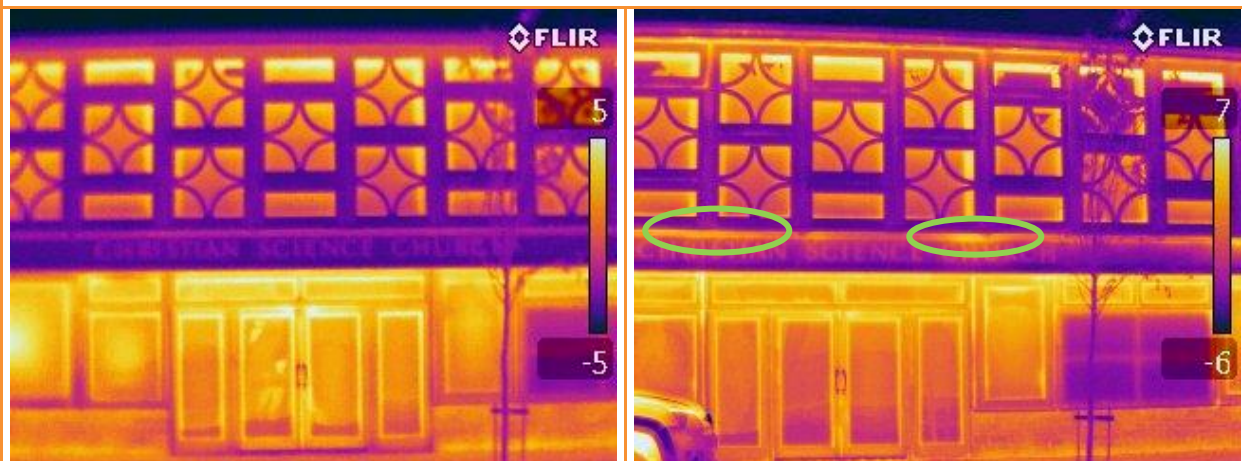


**2.38: Thermographic image showing leakage between sections of window just below the head, first floor bedroom, also around hinge**

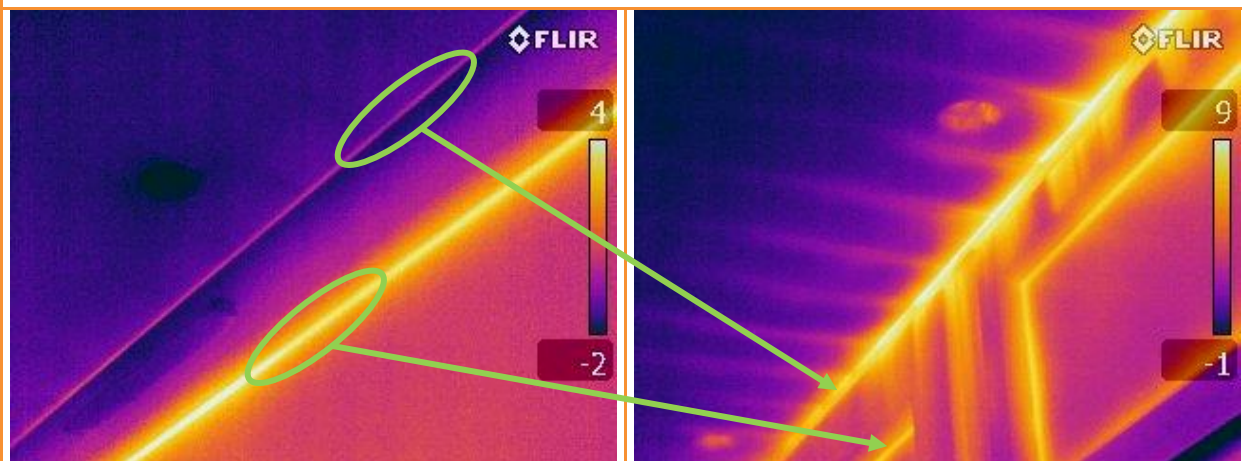




2.39: Thermographic image showing major cold area in ceiling of ground floor lounge. Suggests that leakage into the void above the plasterboard may be occurring around some or all of the steel beam above the window opening



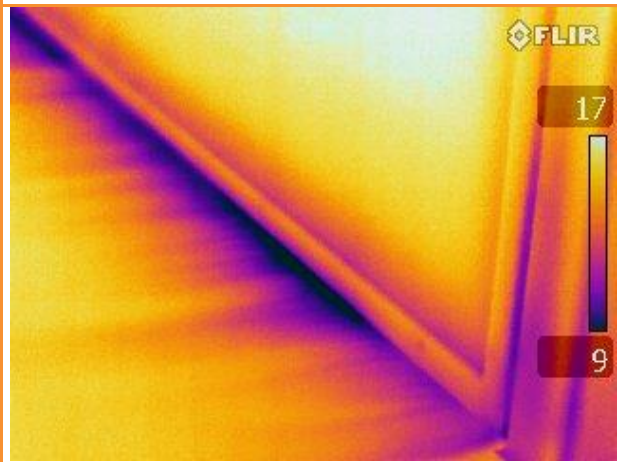
2.40: Thermographic image showing leakage along underside of balcony before building pressurised (left), then after building pressurised showing significant leakage along front edge of upper windows (right)



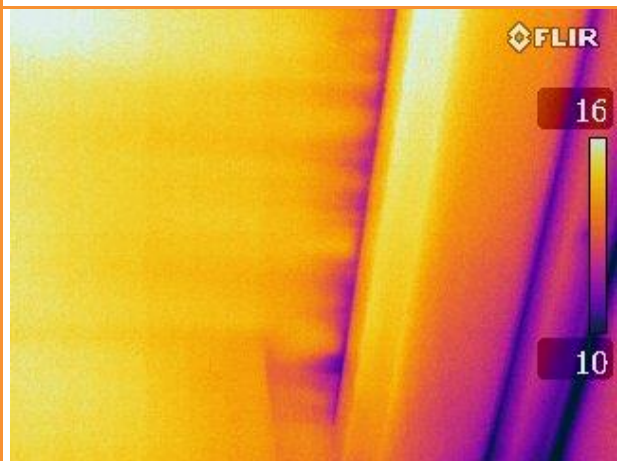
2.41: Thermographic image showing heat reflecting off metal spacer bar at window head before building pressurised, then more heat loss when pressurised: on window head, also along joints in timber under-cladding & through the vents



**2.42: Internal view of window whilst depressurised, external cold air clearly leaking significantly. Temporary sealing applied to quantify leakage from this source.**



**2.43: Thermographic image whilst building depressurised showing substantial leakage along bottom edge of large window**

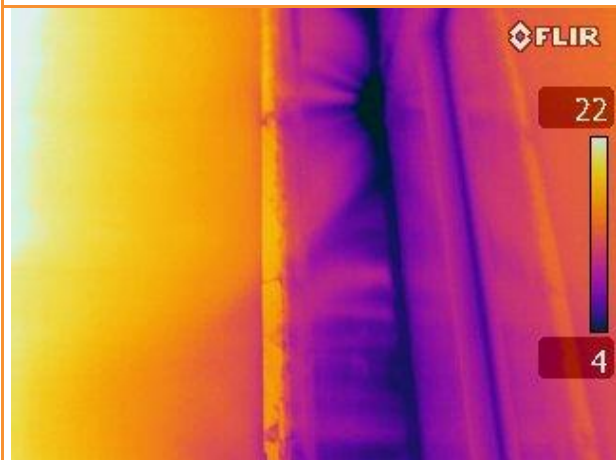


**2.44: Thermographic image whilst building depressurised showing substantial leakage along top edge of boxing inside large window**

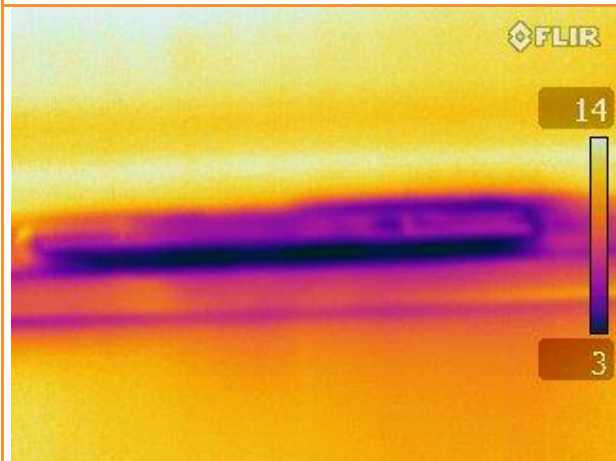




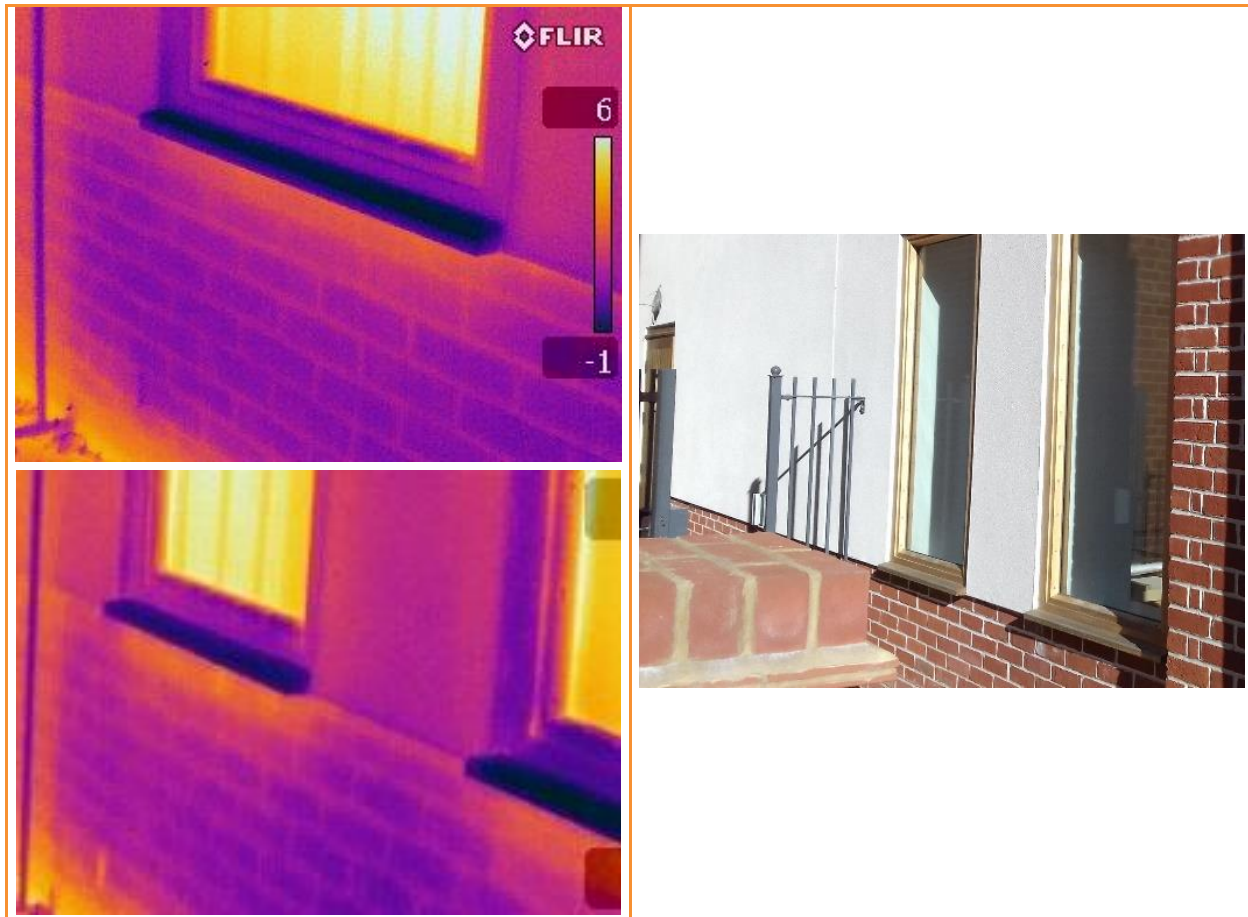
**2.45: Thermographic image of major leakage at side of window frame whilst depressurising**



**2.46: Thermographic image of major leakage at side of window frame whilst depressurising**

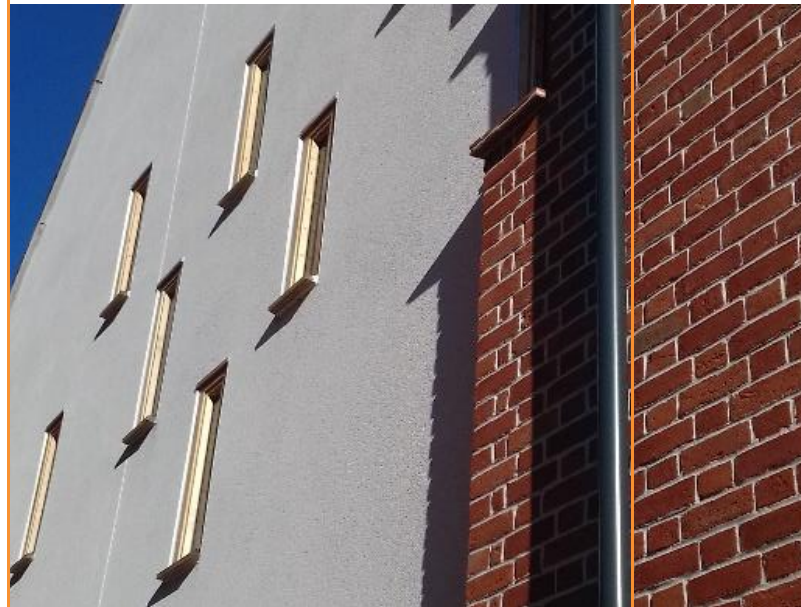


**2.47: Thermographic image of major leakage around closed trickle vent whilst depressurising**

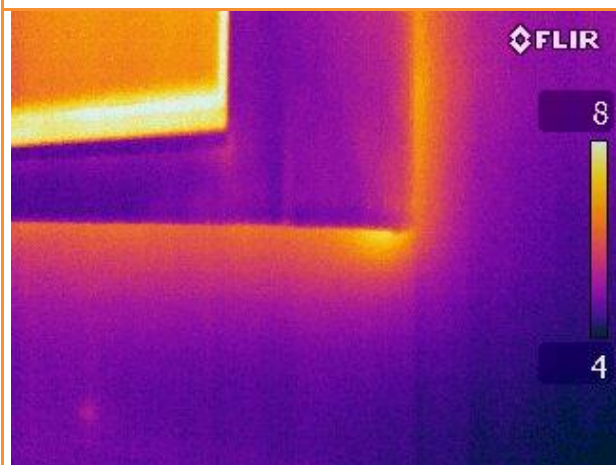


**2.48: Thermographic image showing some heat loss under window sill before pressure applied (top), then after building pressurised (bottom)**

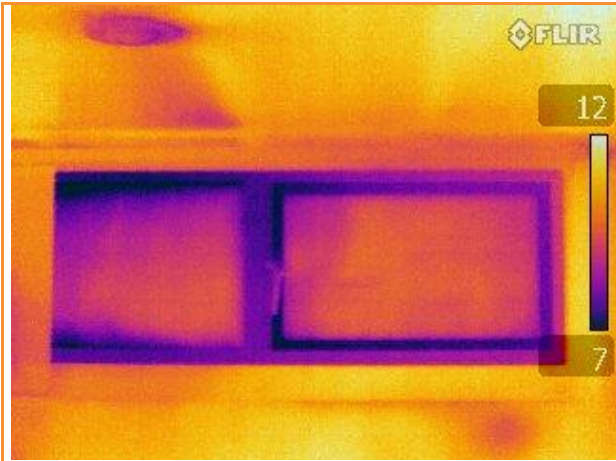




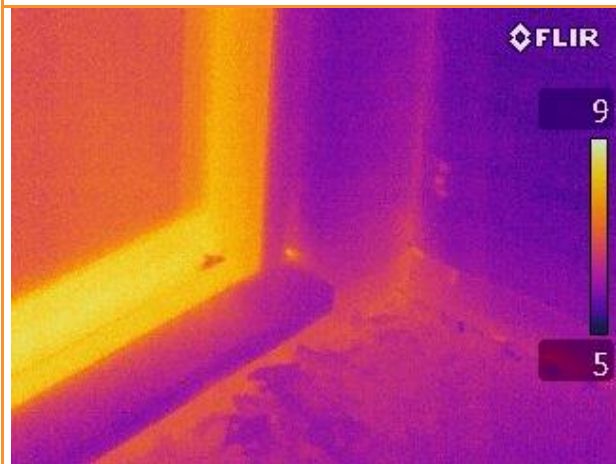
**2.49: Thermographic images of window sills at east end of building before pressure applied (top), then after pressure applied, showing noticeably more heat loss (bottom)**



**2.50: Thermographic image showing leakage in specific location beneath base of projecting window, also general cold bridging**



2.51: Thermographic image showing substantial leakage around dormer window on top floor

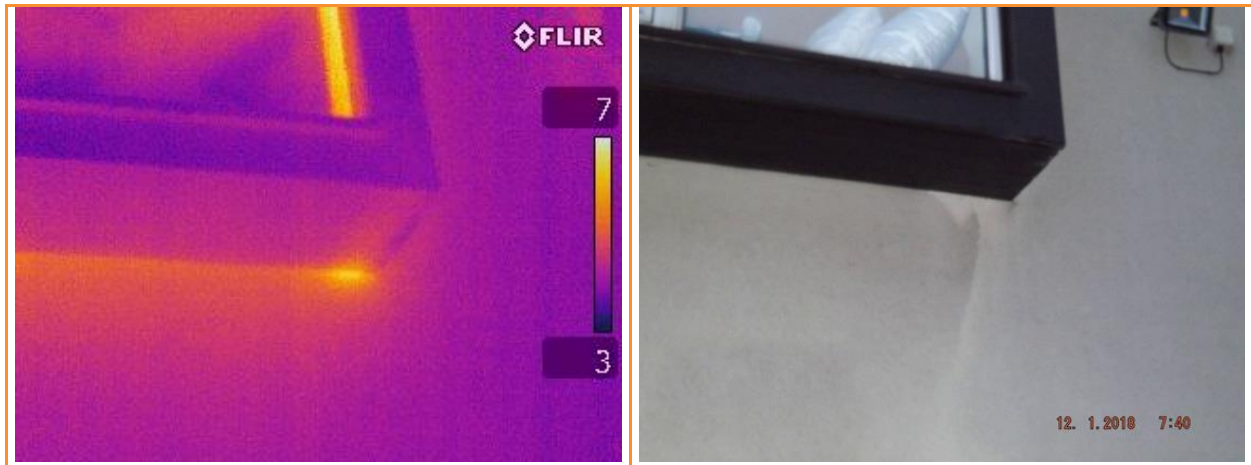


2.52: Thermographic image showing low level point leakage, also some threshold leakage



2.53: Thermographic image showing cold bridging and some leakage around projecting window at end of lounge





**2.54 Thermographic image showing hot spot beneath corner of projecting window – clear leakage**