

Wydevue RES, LLC
381 Bailey Hill Road
Poland, Maine 04274



1-800-960-1080
(207) 998-3701
www.wydevue.com
info@wydevue.com

Infrared Inspections

WYDEVUE Building Analyst use thermography—or infrared scanning—to detect thermal defects and air leakage in building envelopes.

How They Work

Thermography measures surface temperatures by using infrared still cameras (WYDEVUE has video capability). These tools see light that is in the heat spectrum. Images on the video or film record the temperature variations of the building's skin, ranging from white for warm regions to black for cooler areas. The resulting images helps WYDEVUE Building Analyst determine whether insulation is needed. They also serve as a quality control tool, to ensure that insulation has been installed correctly.

A thermo graphic inspection is either an interior or exterior survey. The WYDEVUE Building Analyst decides which method would give the best results under certain weather conditions. (Note that WYDEVUE charges differently on the audit based on what the homeowner is looking to have done.) Interior scans are more common, because warm air escaping from a building does not always move through the walls in a straight line. Heat loss detected in one area of the outside wall might originate at some other location on the inside of the wall. Also, it is harder to detect temperature differences on the outside surface of the building during windy weather. Because of this difficulty, interior surveys are generally more accurate because they benefit from reduced air movement.

Thermo graphic scans are also commonly used with a blower door test running. The blower door helps exaggerate air leaking through defects in the building shell. Such air leaks appear as black streaks in the infrared camera's viewfinder.

Thermography uses specially designed infrared video or still cameras to make images (called thermo grams) that show surface heat variations. This technology has a number of applications. Thermo grams of electrical systems can detect abnormally hot electrical connections or components. Thermo grams of mechanical systems can detect the heat created by excessive friction. WYDEVUE Building Analyst use thermography as a tool to help detect heat losses and air leakage in building envelopes.

Infrared scanning allows WydeVue to check the effectiveness of insulation in a building's construction. The resulting thermo grams help us determine whether a building needs insulation and where in the building it should go. Because wet insulation conducts heat faster than dry insulation, thermo graphic scans of roofs can often detect roof leaks.

Some Energy Auditors may use one of several types of infrared sensing devices in an on-site inspection. WydeVue uses a thermal imaging camera which is most accurate thermo graphic inspection device and produces a 2-dimensional thermal picture of an area showing heat leakage. NOTE: Infrared film used in a conventional camera is not sensitive enough to detect heat loss.