# Utilizing infrared camera inspection for optimal property management - by Kurt Jensen

May 16, 2017 - Design / Build

Kurt Jensen, The Falcon Group

Infrared inspection quickly identifies problem areas of buildings and homes that can't be seen by the naked eye, and eliminates more costly inspection techniques that require destructive investigation. An infrared camera enables inspection reports to be generated in seconds, so that the repairs can begin with maximum speed and assurance. By initiating an ongoing proactive IR maintenance program, property managers save time and money in their restoration, inspection and energy auditing efforts - with the added benefit of satisfied unit owners.

Under a diligent property manager's care, the value and appearance of real estate should not only be maintained, but also increase in value over time.

Property managers oversee the performance of residential or income-producing commercial properties, and work to keep the buildings and land structurally and environmentally sound. Building maintenance and operations can be a challenging responsibility when attempting to locate the source of a problem. Infrared (IR) technology, however, can provide the answers to many building maintenance concerns, while saving property mangers time and money, and keeping tenants satisfied.

There are many applications within the building diagnostics industry where infrared cameras are used including restoration, inspection, and energy auditing. To a property manager or an insurance company involved in a property damage settlement, clear images of normally invisible diagnostic evidence can be invaluable for planning the restoration effort and rationalizing settlements. The thermal images can also reveal if a fire has been completely extinguished and that no further hot spots exist that might reignite. For catastrophic storm water intrusion and plumbing failures, infrared cameras are able to trace the influx of moisture to find the origin of the incursion with little or no disassembly of the premises and minimal disturbance of inhabitants. During restoration, infrared thermography can be used to evaluate the progress of the drying out process. Having authoritative thermographic records can reduce or even eliminate the need for insurance companies to make on-site inspections, along with protecting against future frivolous claims.

Infrared can also help win the battle against moisture and mold in building materials that can destroy

structural integrity and cause serious health concerns. Infrared cameras distinguish between wet and dry materials by revealing the thermal characteristic of wet materials that store heat very well, and warm up or cool down more slowly than dry materials. Mold has become a growing concern for property managers due to the increasing number of claims stating that mold is a severe health hazard, causing respiratory problems. The first step in mold remediation is to accurately locate and remove all sources of moisture. Infrared cameras can instantly image entire rooms, inspecting places that can't be physically reached with moisture meters, reveal wet conditions behind surfaces such as wallpaper which doesn't readily water stain, track leaks to their source, monitor the drying process and confirm when a structure is in fact dry.

Infrared is also an important tool for inspecting HVAC (heating, ventilating, and air conditioning) systems. By identifying differences in air temperatures, infrared can pinpoint areas of unwanted pressurization or de-pressurization within a building, as well as find problems with HVAC components. For example, infrared can detect possible areas of heating and cooling inefficiency through leaks in the ducts that run through walls and attics.

It is important to note that all the infrared analysis can also be captured with a drone. Drones gather information in difficult to reach places. While drones will not replace a routine inspection, they can reach rooftops and façade elevations more quickly and safely than traditional methods

Kurt Jensen, RA, is a architect/project manager at The Falcon Group, Bridgewater, N.J.