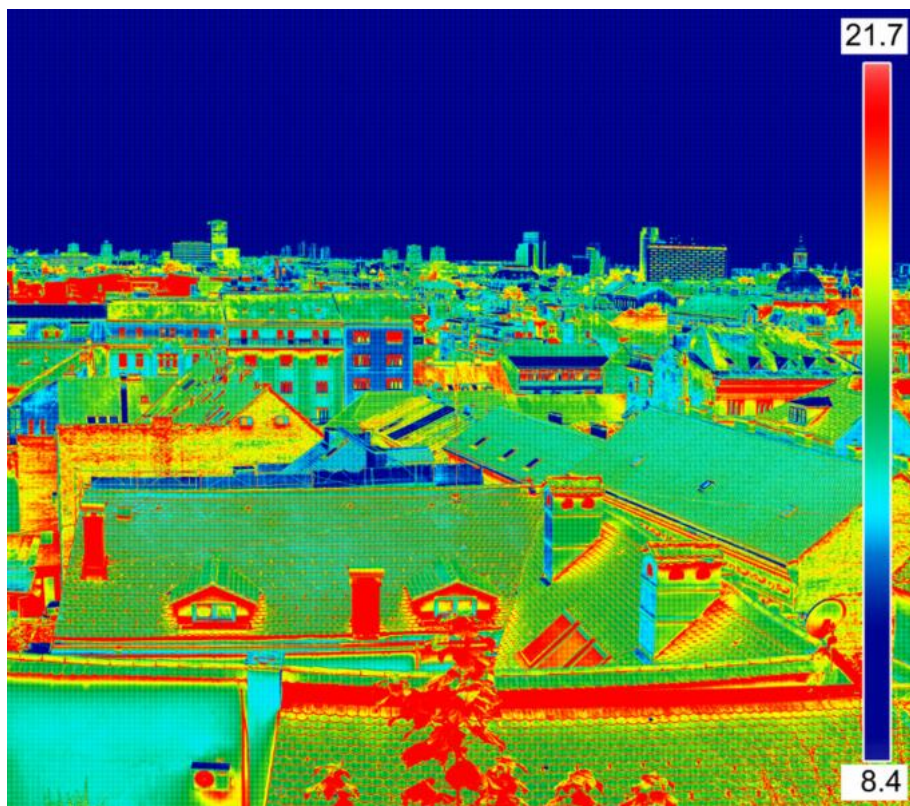


## The *Benefits of Using Thermal Imaging*

There are many **benefits of thermal imaging**. And it isn't just for **night vision** or hunting. **Thermal imaging** is a **technology** being used more frequently in the **construction** industry. If you want to build safe, durable structures or need to find **leaks**, **thermal imaging** helps you exceed **construction** industry standards.

Top to bottom, **thermal imaging** provides you, the building owner, terrific peace of mind about the **building inspection** of your commercial **property**. MTI will find problem **areas** of your **construction** site, and we provide you all the information readily available in a cloud-based report.



### What MTI has to offer?

MTI has both Ariel and handheld **thermal** equipment that can be used for various applications on your projects. We can quickly scan a **building** envelope to look for areas of stress or leakage in the **building**. A façade issue on a tall **building** may not be visible to the **naked eye** but can be captured by doing a **Thermal** and Visual Ariel scan of a **building**. Mechanical Testing, Inc. has Level 1 and 2 Thermographers ready to help building owners understand various issues happening to their building.

This scan can help identify issues and fix them quickly, saving a **building** owner from future issues. A **thermal** roof scan can also identify any leakage or roof membrane issues before the **leak** becomes a bigger problem. A simple roof scan of a new roof would also help in a natural disaster where the roof's viability for an insurance claim may come into question. New applications for UAV's and Robotics emerge daily and the construction job site will be the next vertical that is positively impacted exponentially.

### **What Does Mechanical Testing, Inc. use *Thermal Imaging* for?**

Thermal imaging is used to visualize and highlight potential concerns before they can cause a breakdown. These breakdowns can cause many forms of structural damage. **Building inspections** assess moisture damage and electrical problems for any structure. **Thermal imaging** with Mechanical Testing, Inc. will help you find these issues while they are still small. MTI also uses drones to assist with **thermal imaging**. Whether MTI uses handheld devices or drones, we conduct thermal scanning to assist the building owner find serious issues that may cost significant money.

### **How *Thermal Imaging* Works**

A **thermal imaging camera** detects **heat radiation** from the **electromagnetic spectrum** to create a 2-D **image** of your building.

**Thermal imaging** helps:

- Facilitate detection of construction issues
- Pinpoint energy loss
- Detect **thermal** insulation and HVAC issues
- Inspect in **areas** where other methods are impossible or dangerous
- Show a visual **image** over an important **area** while comparing **temperature differences** through **color** variation **data**.
- As a Building Commissioning tool, **thermal imaging** helps locate problems and affords repairs while the contractor is still on site.

### **Weather Conditions**

At MTI, we monitor the weather closely when completing a **thermal imaging** scan. We need to pay attention to certain weather factors that can influence exterior surface temperatures. First, the difference in **temperature** between the interior and the exterior of the area you **image** impacts how the camera detects the **temperature** differential. At MTI, the Certified technician considers **lighting conditions** and the wind speed as well.

If you are **imaging** a roof for **thermal radiation**, the best conditions are:

- A calm day

- Clear conditions the day before **thermal imaging**

If temperatures are similar, **heat radiation imaging** can lead to misreading information from the **camera**; so an **object** can become indistinguishable.

If the weather is extremely hot, **imaging** at dusk is your best bet. If you must **image** during wintry weather, attempt to create a large **temperature difference** between the building's interior and exterior.

### **Using *Thermal Imaging* in *Building Inspection***

**Thermal imaging** is the quickest and most efficient method of detecting structural defects, moisture intrusion, electrical problems, and energy waste in buildings. A **thermal imaging camera**, showing precisely where issues develop, helps focus MTI's Certified technicians and allows them to diagnose the **areas** needing repair. We provide high-tech **building inspection** services for all commercial **construction** projects.

### **Nondestructive Inspection**

MTI uses **thermal imaging technology** to scan power transmission lines as well as parts in mechanical or electrical equipment. More and more **building** owners and project managers realize professional non-destructive testing can significantly reduce costs, provide safety and improve **building** management.

Mechanical Testing, Inc. uses **thermal imaging** because it can reveal hidden moisture within a critical and costly **building** component. This **technology** offers invaluable information to those making expensive **building** management decisions.

### **Mold Overgrowth**

Wet building materials provide an excellent environment for the growth of mold. The longer **building** materials stay wet, the worse the problem becomes. The opportunity to reduce losses, and potential liabilities, decrease as soon as the problem **areas** are identified and mitigated. It's especially important to get a comprehensive investigation of the roof. Is it watertight? Is there a potential for mold in the roof?

### **Results You Can Count On**

Of course, many business owners order **thermal imaging** surveys when they face enormous decisions about roof repairs, or if they need a roof replacement. Frequently they need this information to help them select the most cost-effective repair and replacement options.

In our **thermal imaging** reporting, MTI provides you with **thermal images** and professional reporting to tell you what is being reflected by the **thermal imaging**

**camera.** MTI also gives you a hard copy of the cloud-based report. And Mechanical Testing, Inc. does all this for you. Call MTI at 518-450-7292 or email us at [sales@mtidrones.com](mailto:sales@mtidrones.com). Contact us today.