



## Inspection Time(s)

### *ITI, How All Inspections Should Be Done*

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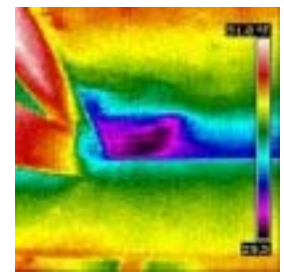
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### WHAT IS INFRARED THERMAL IMAGING?

Once only the domain of military, science and space programs, Infrared Thermal Imaging (ITI) has made its way into the industrial and commercial sector. Founded on the exact same technologies as used by advanced military aircraft, weather satellites and even the space shuttle, ITI technology for property inspections provides me with a

view of your property like no other. With ITI technology, I can see beyond the spectrum of "natural light" (which is the light that bounces off all objects we can see under the sun or under a light bulb), and measure the temperature variances of any surface to determine where heat, cold, moisture and even mold be occurring in undesirable places. Because everything has a surface temperature, ITI technology allows me to see the variances in those surface temperatures. The variances are represented by different color tones with the color black representing the coldest temperatures and the color white representing the hottest temperatures. Any color in the

red, orange and yellow hues represents warmth while color in the green, purple and blue hues represents cooler temperatures.



Moisture Intrusion: roof leak

- IR technology is the most valuable asset to enter the inspection realm
- Our clients needs are paramount in property acquisition
- If there is a variance in surface temperature, ITI is needed to help 'tell the story'

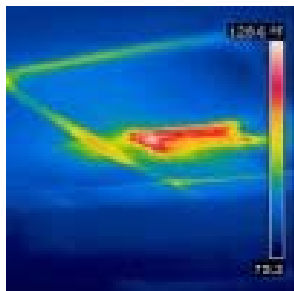
### *Why is ITI Vital To Inspections?*

As human beings, we are limited to seeing light only in the visible spectrum called white light. This is the light that bounces off everyday objects whether that light is being emitted by our Sun or an artificial source such as a light bulb. Without assistance from

technology, we are unable to see surface temperature variances, and it is the ability to see these variances that allows me to more accurately identify potential and immediate problems in your home that would have otherwise been missed.

The unique aspect of seeing surface temperature variances is that such variances can be caused by issues that may lie below the surface of a floor, behind a wall, or above a ceiling - places that are "out of sight" and are thus out-of-mind. Also, surface

## ITI Vital (cont.)



Leaky duct above a drop ceiling.

temperature variances can be caused by airflow such as cold air seeping under a door or warm air leaking from central air ducts. The air itself changes the surface temperature of objects that come in contact with the air. Surface temperatures can also be changed by living organisms such as mold, mildew and wild pests. Because these organisms often thrive in places that cannot be seen by the naked eye (such as behind walls), the use of ITI technology allows me to pinpoint exactly where a

problem area is without the need for any immediate invasive damage to the structure of the building. Finally, thermal imaging technology gives me the capability to more accurately identify damage to the Electrical systems. By being able to pinpoint "hot spots" in fuse boxes and household wiring, I can provide electricians with detailed imagery that will help them to identify defects and make repairs more quickly, saving money.

In short, ITI technology is purposefully designed to provide a level of service that increases the speed by which many problems can be identified, reduces the collateral damage required to fix those problems, increases the accuracy rate of correctly identifying problems, and helps to catch small problems sooner so they don't become expensive or unmanageable problems that can affect the health & financial well-being of the workplace, employees & business.

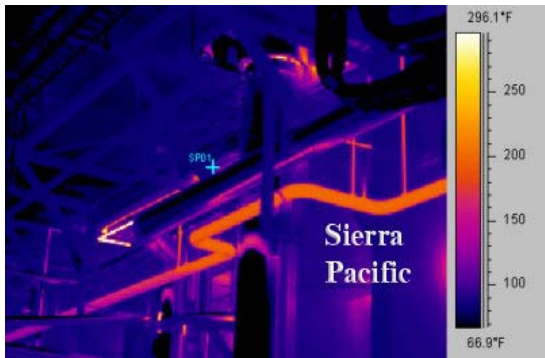
**"The standards of practice of different associations and the ASTM guidelines for Property Condition Assessments are comprehensive, but ITI scan inspections take it to the next level"**

## The Future is Here!!!

Not long ago, there was much discussion in the inspection industry about the value and accuracy of infrared camera technology. I think the past few years results and improvements in technology provide an answer to those questions...WHAT TOOK SO LONG! This truly amazing camera technology is destined

to be the minimum standard in commercial and residential inspections before long. The standards of practice of different associations and the ASTM guidelines for Property Condition Assessments are comprehensive, but ITI scan inspections take it to the next level. Although this isn't the

equivalent to 'seeing through walls', (we'll leave that to Superman), it is the next best thing, and certainly far superior than what is visible with the naked eye.



Facility Pipe Network Flow.

## The Client Matters

Like all professionals, property inspectors and real estate agents strive to meet the needs of our clients. Everything about a property may seem to be exactly what the client wants after they research and visit the property, but due diligence dictates an inspection is a critical step in the acquisition process. Home Select Inspections follows the guidelines of ASTM E 2018-01 when conducting commercial property condition assessments. In addition to following these guidelines and association standards, Home Select Inspections utilizes state-of-the-art ITI technology and reporting to provide our clients with the best possible service in their inspection needs. Nobody wants the client to regret the acquisition because of the building condition and an inspection by Home Select Inspections helps to mitigate that possibility.

## *What is Inspected?*

I conduct all inspections following a well-researched and proven protocol in order to provide a thorough and comprehensive assessment of all areas of concern, and in keeping with ASTM E 2187-01 international guidelines for Property Condition Assessments.

Home Select Inspections will perform an infrared thermal imaging scan to measure the temperature and temperature variations of the visible, safely accessible, and readily accessible portions of the following basic components, and more:

### **ITI Energy Survey**

#### *ITI ENERGY SURVEY SCOPE OF WORK*

- interior and exterior walls
- interior ceilings and floors
- mechanical heating/cooling systems
- doors & windows

Property Condition Assessment (PCA) Reports will be accompanied by both natural (visible light) and infrared photographs where applicable.

### **ITI Moisture Survey**

#### *ITI MOISTURE SURVEY SCOPE OF WORK*

- interior and exterior walls
- interior ceilings and floors
- roof surfaces
- water supply and waste line runs
- liquid storage facilities



*AC unit fault image*

### **ITI Electrical Survey**

#### *ITI ELECTRICAL SURVEY SCOPE OF WORK*

- meter socket enclosures
- service entrance conductors and equipment
- the means for disconnecting the service main
- main electrical distribution panels and sub-panels
- determine the rating of the service amperage
- accessible electrical receptacles, switches and junction boxes
- service drop laterals
- service bonding and grounding
- transformers
- electrical machinery
- and more.



*Faulty connection at power station.*

This survey includes evaluation for areas where temperatures are consistent with missing, non-uniformly distributed, marginal, or wet thermal insulation as well as an evaluation of the overall building envelope including air infiltration and heating and cooling losses from HVAC systems. The results of these evaluations will be documented in the **Property Condition Assessment (PCA) Report** and will be accompanied by both natural (visible light) and infrared photographs where applicable. Only the visible, safely accessible, and readily accessible portions of the components specified in this scope of work shall be examined and evaluated.



# Home Select Inspections Inc.

Since 2001

**Inspected once, inspected right!**

**call 613-483-4308** or Fax to 389-5314

Or

Email:

**Info@HomeSelectInspections.com**

**WWW.HomeSelectInspections.com**

Realtor "Hold Harmless" clause in all contracts

Steve Butts has been conducting inspections since 2001. Home Select Inspections is dedicated to providing affordable, professional and accurate building and property inspection services to clients for all types of properties in Kingston and the surrounding areas. This is done following professional Standards of Practice and Code of Ethics while providing a customer service level 2<sup>nd</sup> to none.

Inspection services include, Commercial, Residential, WETT, Private wells, New construction, Renovations & ITI scans.

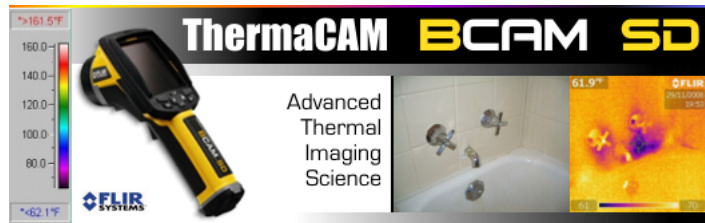
My normal area of operations is south-eastern Ontario.

*We use the Flir B-Cam SD for thermal imagery scans.*



Wood Energy Technology Transfer Inc.

WETT® # 5400



## Testimonial:

Ability, skills, value of report & service...all EXCELLENT!

...thoroughness, timeliness and efficiency are the important factors for me and you've done them well.

**Steve S, Client (commercial inspection)**

## Industry Qualifications

- ∇ I am a member in good standing of the National Association of Certified Home Inspectors (NACHI)
- ∇ I have passed NACHI's Inspector Examination
- ∇ I have passed NACHI's Inspection Exams
- ∇ I have completed NACHI's Code of Ethics Course
- ∇ I follow NACHI's Standard of Practice
- ∇ I have passed the OAHl Defect Recognition Course
- ∇ I am a graduate of the Carson Dunlop Engineering Home Inspection Program
- ∇ I am a graduate of the George Brown College Heating Inspection Course
- ∇ I am a graduate of the Ontario Building Code
- ∇ I am a Certified WETT (Wood Energy Technical Training) Inspector
- ∇ I am trained in WETT installation design of wood burning appliances
- ∇ I am Certified in Construction Management
- ∇ I am a Certified Well Sampler (CWS)
- ∇ I am a qualified commercial inspector
- ∇ I continually upgrade my education in the building & inspection industry
- ∇ I am available Every day of the week
- ∇ I am your consultant for as long as you own the building
- ∇ I provide Comprehensive PCA Reports, with photos
- ∇ Independent ITI scan reports are provided