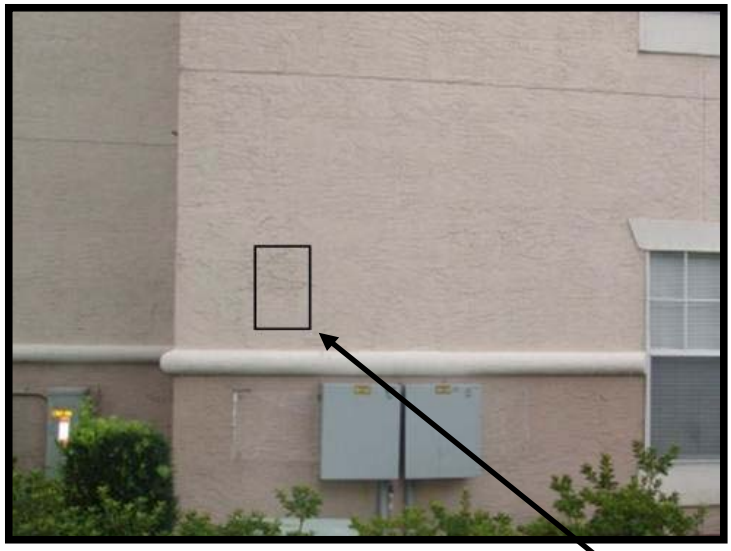
BUILDING DIAGNOSTICS GROUP™

Sample Report

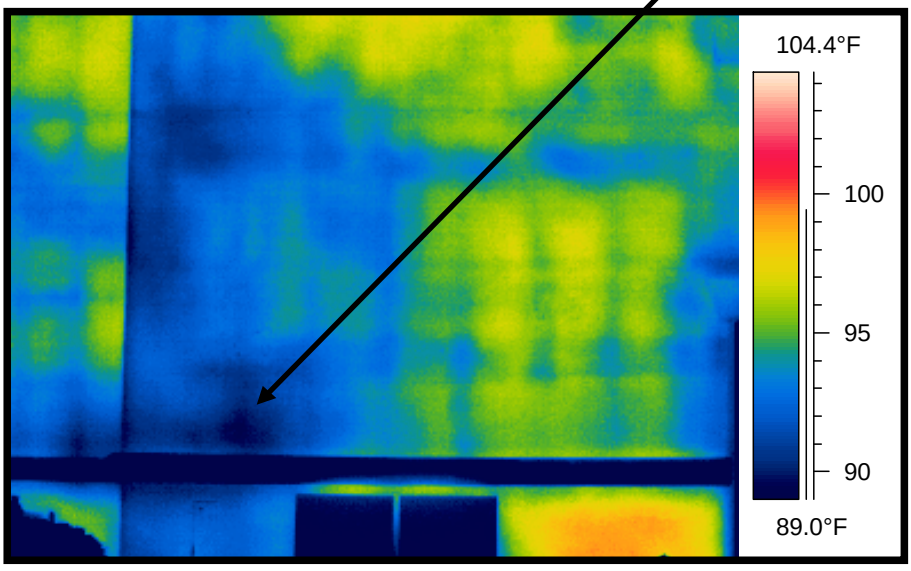
Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Exterior Cladding Evaluations



IR Text Comment	Value
Location	Building 1502
Sub location	West Elevation
Fault	Moisture Confirmed

IR Image



IR information	Value
Date of creation	8/2/2007
Time of creation	5:30:43 PM
File name	Ir_1139.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	99.6°F
IR : min	77.8°F

Observations

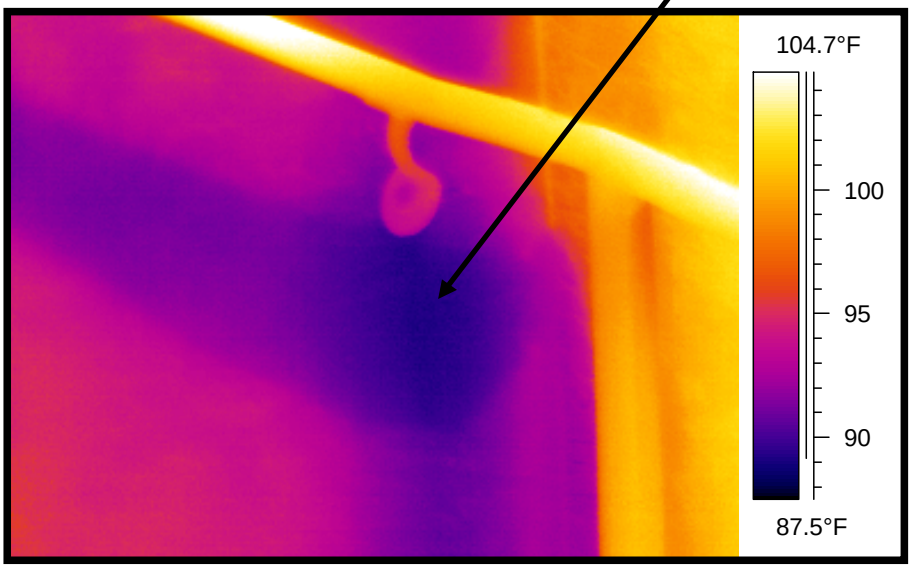
The areas in blue (IR Image) were verified to have extensive sheathing damage caused by cracks in the stucco system. The use of infrared imaging provides rapid identification of suspect wet materials. This technique, combined with moisture meter confirmation can provide qualitative and quantifiable information about the extent of damage of sheathing behind stucco systems. This has proved to be an invaluable tool in commercial due diligence studies.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Exterior Cladding Evaluations

IR Text Comment	Value
Location	Building 12
Sub location	East Stairway
Fault	Anomaly

IR Image



IR information	Value
Date of creation	8/3/2008
Time of creation	11:00:19 AM
File name	Ir_1142.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	106.2°F
IR : min	89.1°F

Observations

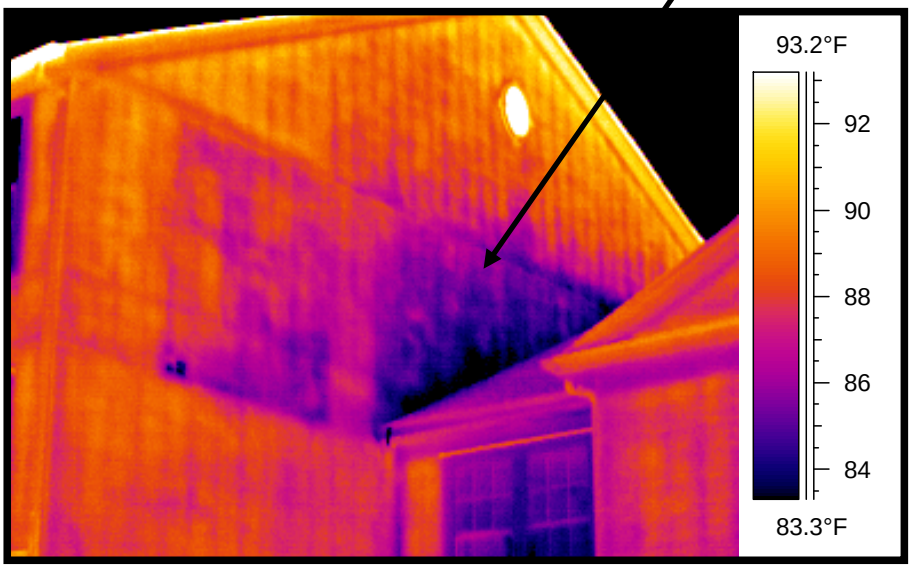
Mechanical fasteners used to attach the hand rail were not properly sealed causing water infiltration that eventually caused structural damage with this wall section. Infrared thermography provides an invaluable service to forensic engineering and construction defect investigations in that it allows a non-destructive method to substantiate visual findings with an illustrative image.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Exterior Cladding Evaluations

IR Text Comment	Value
Location	Building 2
Sub location	West Gable End
Fault	Damage Confirmed

IR Image



IR information	Value
Date of creation	8/10/2008
Time of creation	10:25:11 AM
File name	Ir_1334.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	100.1°F
IR : min	53.9°F

Observations

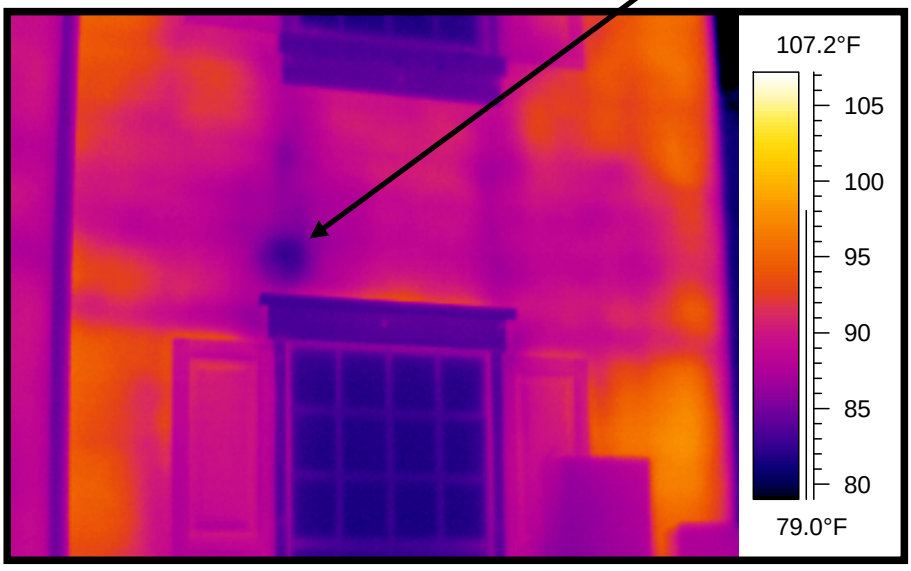
Water infiltration at the horizontal expansion joint caused extensive structural damage of this multi-family apartment complex. Infrared imaging allows us to evaluate the condition of the exterior cladding systems by mapping areas of moisture entrapment and delamination due to environmental stress.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Exterior Cladding Evaluations

IR Text Comment	Value
Location	Unit 604
Sub location	West Elevation
Fault	Anomaly

IR Image



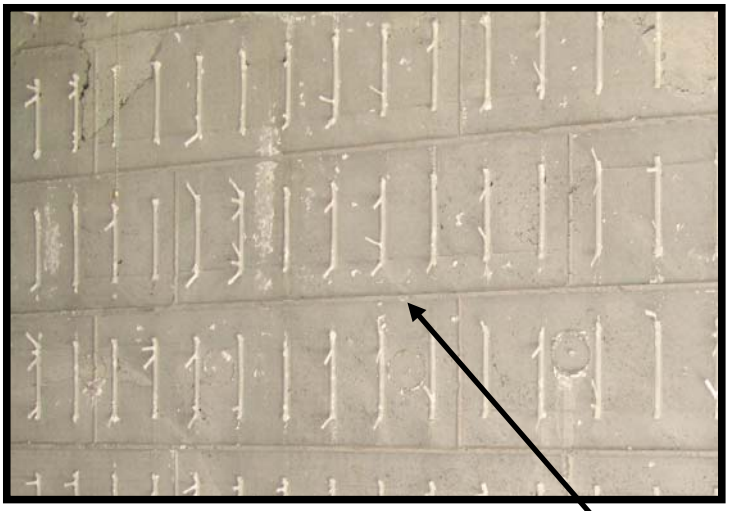
IR information	Value
Date of creation	8/05/2007
Time of creation	1:35:14 PM
File name	Ir_1411.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	98.3°F
IR : min	75.8°F

Observations

Infrared thermography identified numerous areas at this multi-family apartment building with anomalies indicating water infiltration and sheathing damage. Exterior cladding surveys are extremely cost effective; we can perform thorough and accurate surveys on large properties in days, not weeks.

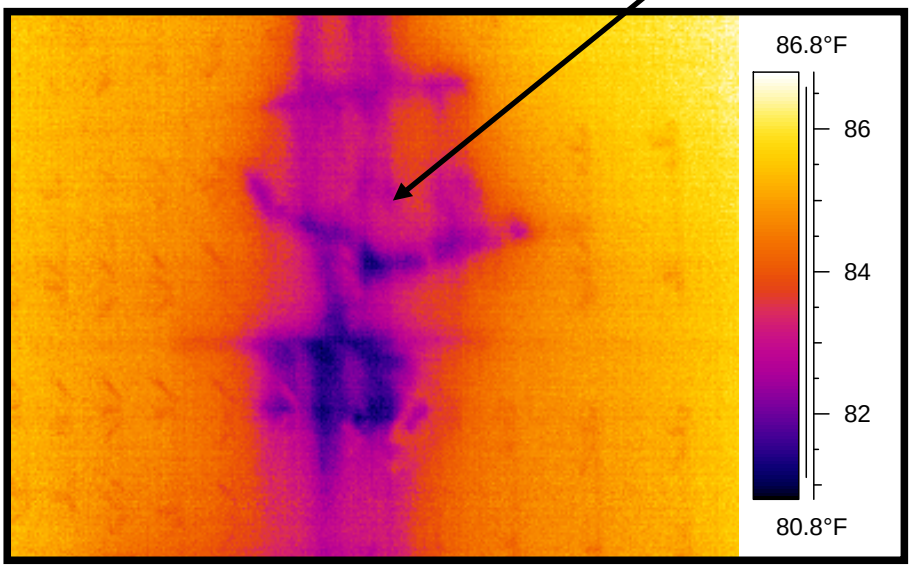
Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Water Infiltration Testing



IR Text Comment	Value
Location	Unit 410
Sub location	Master Bedroom
Fault	Post Water Test - Failure

IR Image



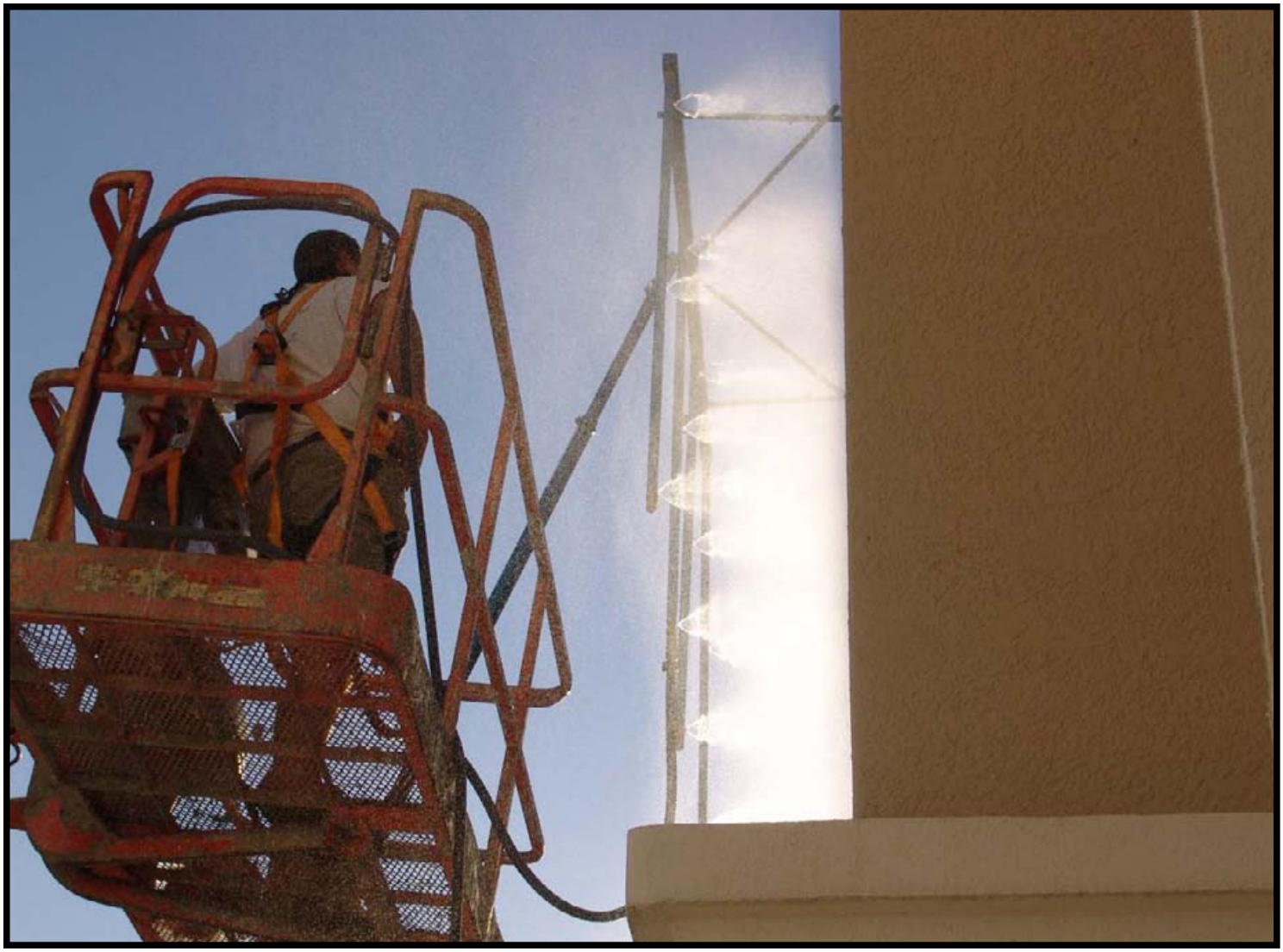
IR information	Value
Date of creation	9/20/2007
Time of creation	5:27:12 PM
File name	Ir_1619.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	86.8°F
IR : min	80.9°F

Observations

Water testing using static pressure (suction) confirmed water infiltration through a solid poured concrete wall system. The objective of field testing is to correlate paths of moisture infiltration with the observed damages. Anyone can observe moisture coming into a building during harsh weather events. However, the most reliable way to pinpoint the exact location of moisture intrusion is to create a controlled severe weather-like situation so the path of infiltration can be located.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Detailed Photo

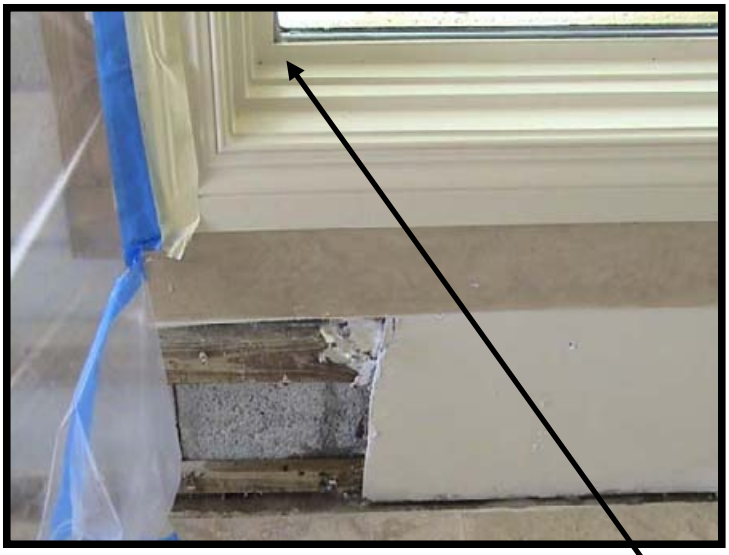


Water Infiltration Testing

We can recreate a simulated rain fall event to find the exact point of water infiltration. This information will be properly documented so proper repair procedures can be executed. Following the repairs, we typically retest the areas to determine if the repairs were performed correctly and verify the water intrusion has been repairs. Out testing equipment is highly portable, we can perform this service anywhere.

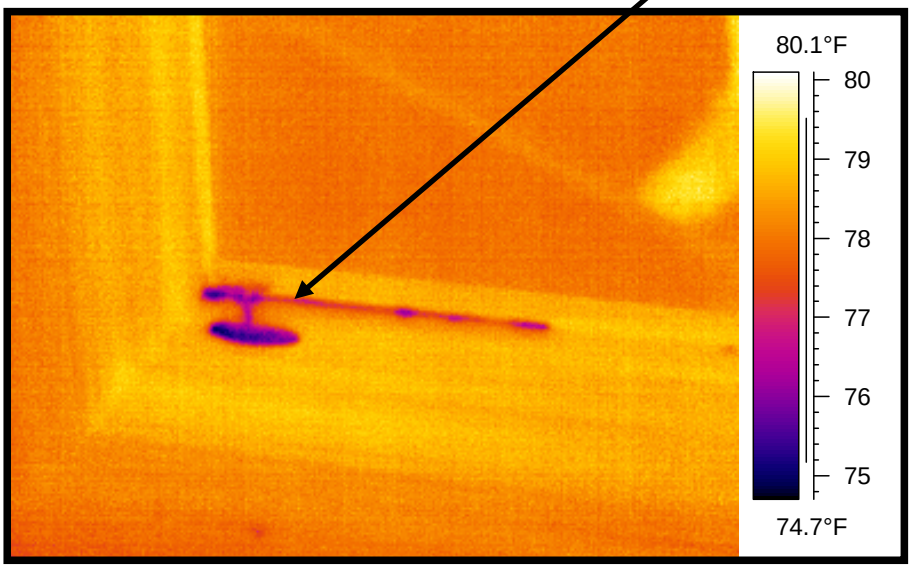
Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Water Infiltration Testing



IR Text Comment	Value
Location	Dining Room Test #1
Sub location	Lower Left Corner
Fault	Post Water Test - Failed

IR Image



IR information	Value
Date of creation	6/24/2006
Time of creation	2:25:09 PM
File name	Ir_0733.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	79.7°F
IR : min	74.9°F

Observations

Our specialty is water damage cause and origin investigations. During this test we identified a failure in the window assembly rather than the actual window installation. We use specialized calibrated water spray rack equipment to recreate reported water intrusions and accurately identify failure points within a fenestration system.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Detailed Photo

Water Infiltration Testing

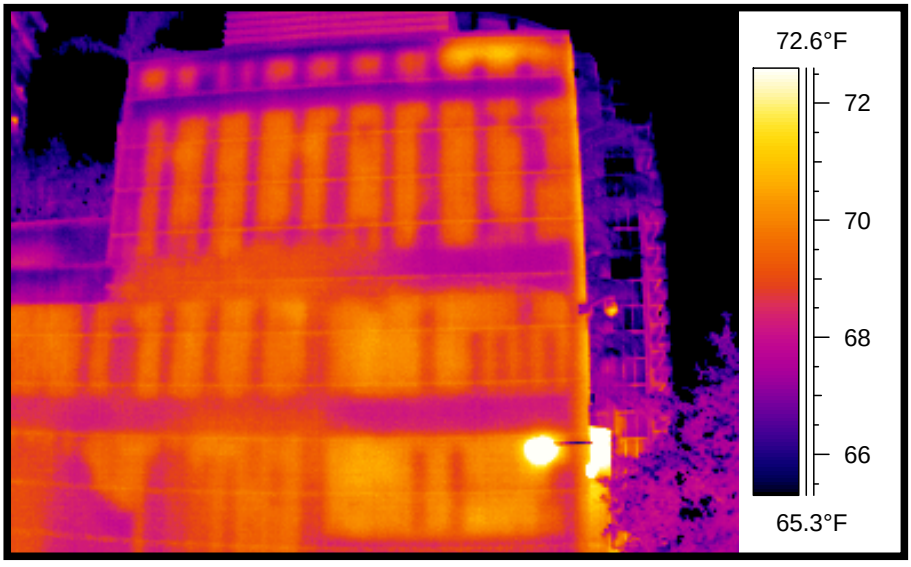
Following the ASTM and AAMA standards, a spray rack system and static pressure chamber will draw moisture into the home/building at defective locations. The use of infrared thermography can accurately locate and document the source intrusion locations. A pressure chamber is typically constructed on the interior of the facility at a specific location to test moisture driven through an assembly or component. The assembly or component is subjected to a negative force while simultaneously a spray rack test is directed at the assembly to draw the moisture into the home/building. A systematic technique must be followed to accurately identify a failed building component. Building Diagnostics Group has the equipment, experience, and knowledge to identify the cause and origin of most any building failures.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

CMU/Cell Fill Quality Assurance

IR Text Comment	Value
Location	East Elevation
Sub location	Convention Center East Wall
Fault	Incomplete Cell Fills

IR Image



IR information	Value
Date of creation	1/10/2008
Time of creation	4:15:23 PM
File name	Ir_1284.jpg
Camera type	B20 HSV NTSC
Camera serial number	25300651
Camera lens	45
Label	**Value**
IR : max	114.1°F
IR : min	30.9°F

Observations

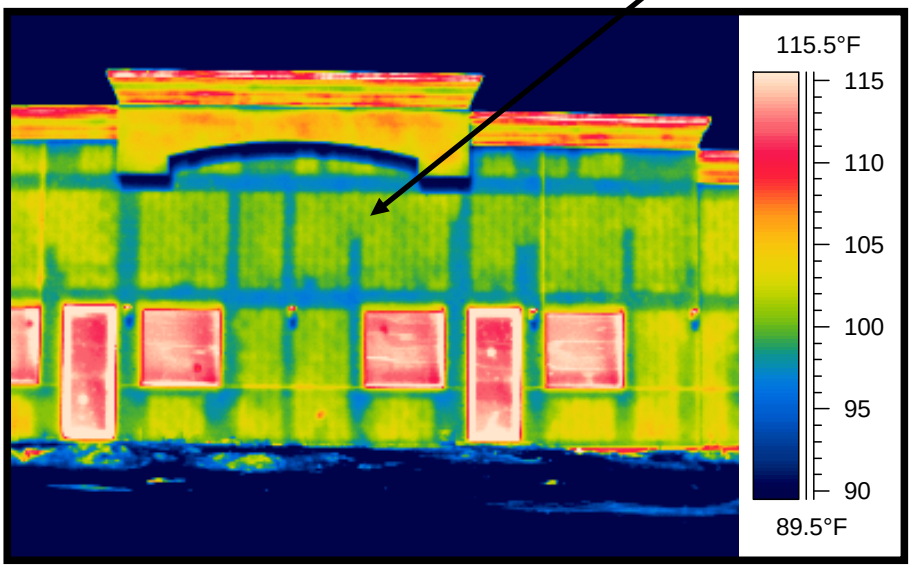
Multiple areas of inadequate cell fills were found at this commercial building in Miami, FL. The use of infrared thermography as a standard in the quality assurance and quality control of grouted masonry construction is becoming more common every year. Infrared technology is the best tool for the surveying of a masonry wall to find deficiencies in the structural components and/or the thermal envelope. It's a fast, inexpensive, and accurate method of quality control of grouted masonry and also provides photo documentation of the project.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

CMU/Cell Fill Quality Assurance

IR Text Comment	Value
Location	19425 Metro Parkway
Sub location	Town Center Plaza
Fault	Mulitple Incomplete Cell Fills

IR Image



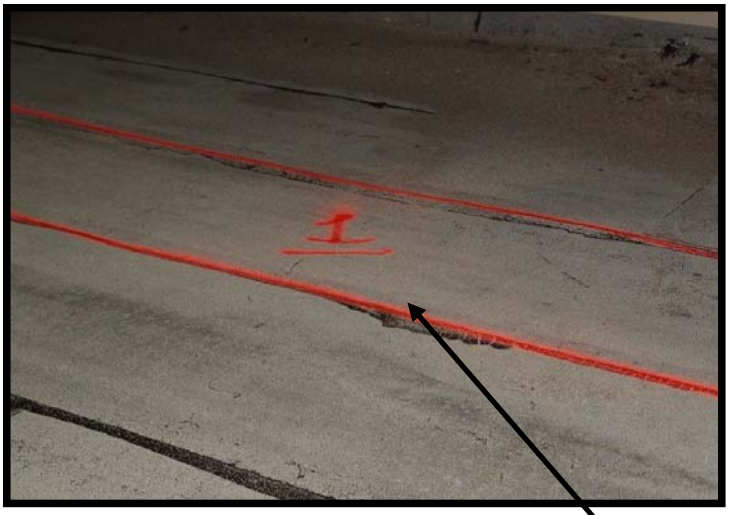
IR information	Value
Date of creation	7/7/2008
Time of creation	10:02:15 AM
File name	Ir_0032.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	131.9°F
IR : min	67.5°F

Observations

For years, the only way that a building owner could look into the masonry wall was to drill (or hammer) a hole in it. This testing is ineffective as only a small area is tested. X-ray testing is so slow and expensive, that it is usually cheaper to knock the wall down and start over if its structural integrity is called into question. If voids are present in the grouted cell, they can reduce the structural capacity of the systems and also collect water leading to interior damage and corrosion of the reinforcement.

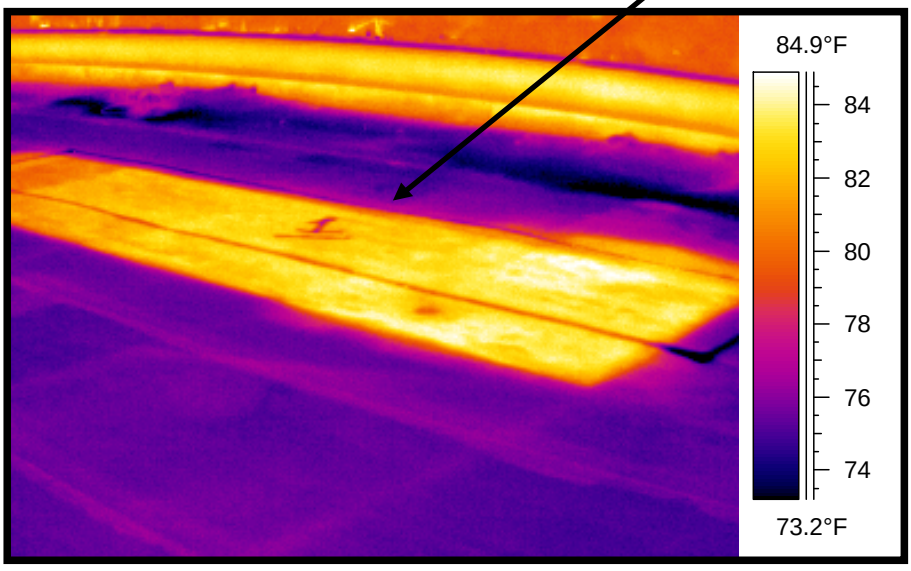
Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Infrared Roof Survey



IR Text Comment	Value
Location	North Tower
Sub location	West End - Spot #1
Fault	Anomaly - Core Sample Location

IR Image



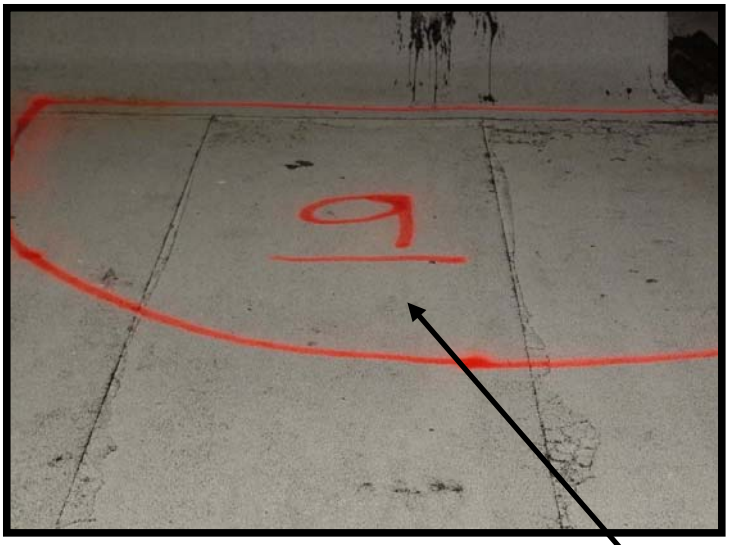
IR information	Value
Date of creation	8/17/2006
Time of creation	8:04:42 PM
File name	Ir_0335.jpg
Camera type	B20 HS NTSC
Camera serial number	25300633
Camera lens	45
Label	**Value**
IR : max	85.7°F
IR : min	70.3°F

Observations

It is estimated that up to 30 percent of commercial roofs will develop problems within the first year of service. The average life span of these roofs is approximately ten years, but can last as long twenty years if they are correctly installed and property maintained.

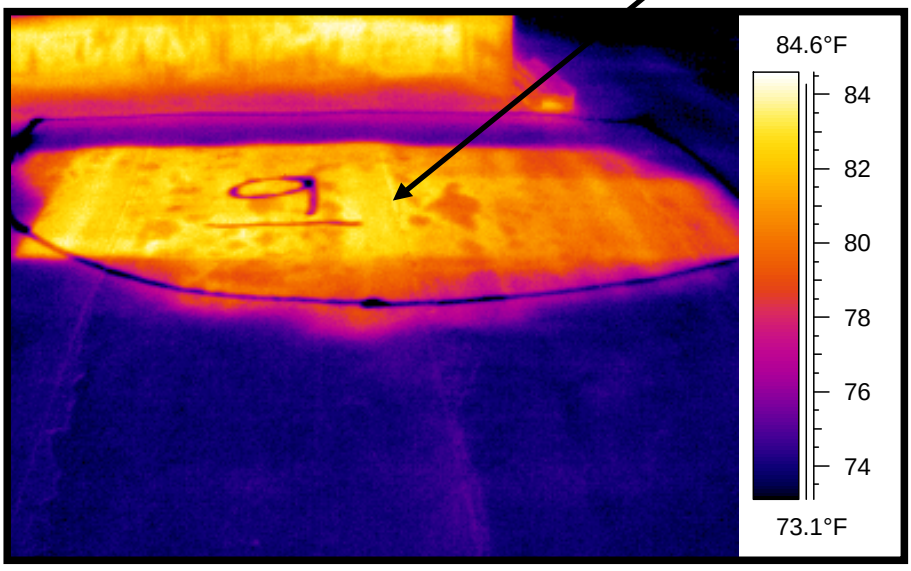
Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Infrared Roof Survey



IR Text Comment	Value
Location	Building 4
Sub location	South End - Spot #9
Fault	Anomaly - Core Sample Location

IR Image



IR information	Value
Date of creation	8/12/2007
Time of creation	8:37:11 PM
File name	Ir_0343.jpg
Camera type	B20 HS NTSC
Camera serial number	25300633
Camera lens	45
Label	**Value**
IR : max	84.4°F
IR : min	70.0°F

Observations

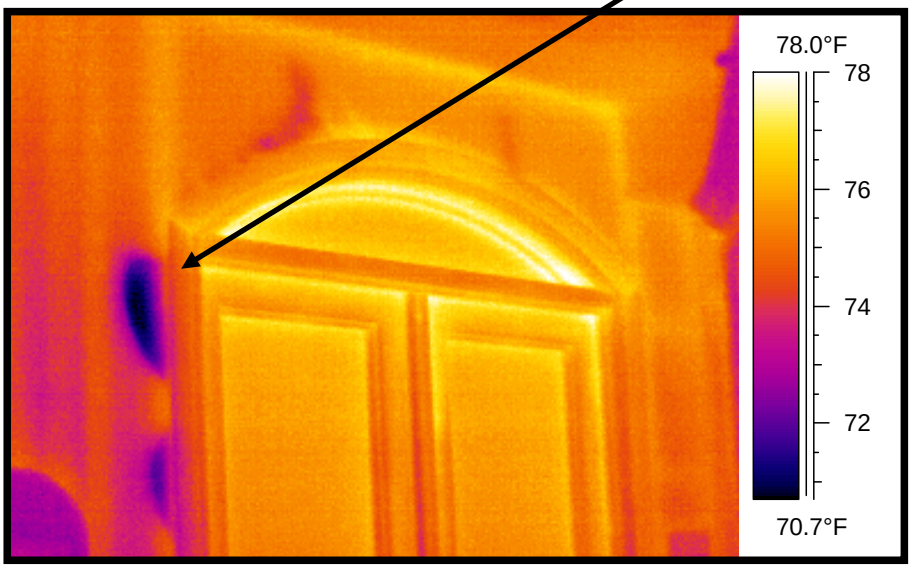
An infrared inspection should become a part of your annual maintenance program. Infrared imaging stands above all other methods in prolonging the life of a commercial roof. Infrared roof inspections are a non-contact and non-destructive testing method to determine active roof leaks. The infrared camera allows a professional thermographer to scan large areas of the roof quickly and accurately.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Water Infiltration Detection

IR Text Comment	Value
Location	Living Room
Sub location	Rear French Door
Fault	Moisture Detected

IR Image



IR information	Value
Date of creation	10/6/2007
Time of creation	3:02:01 PM
File name	Ir_1937.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	78.3°F
IR : min	70.6°F

Observations

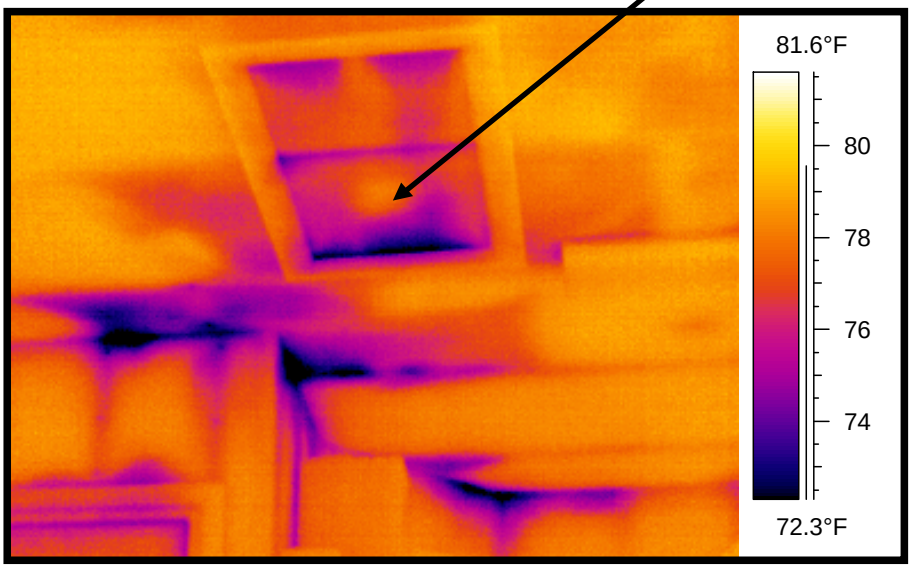
Using high resolution thermal imaging equipment BDG can reveal even the slightest amount of moisture in construction materials. Wet or damp wood, drywall, and even concrete are easily detected using infrared imagery. An in-depth evaluation of the building envelope enables the architect/engineer to develop accurate specifications for contractor bidding, which will also be used during construction.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Water Infiltration Detection

IR Text Comment	Value
Location	Garage
Sub location	Ceiling - West Wall
Fault	Moisture Detected

IR Image



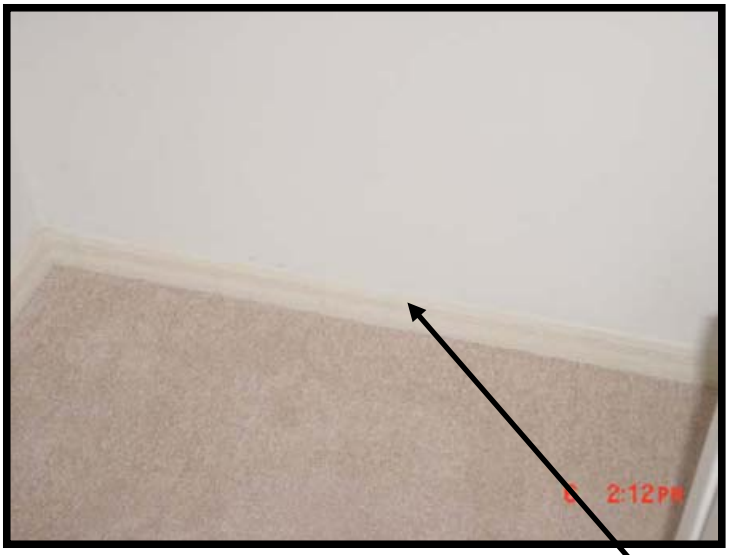
IR information	Value
Date of creation	10/6/2006
Time of creation	3:13:18 PM
File name	Ir_1944.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	79.7°F
IR : min	69.8°F

Observations

Infrared thermography confirmed an active roof leak at the subject residence. Moisture in building materials can destroy its structural integrity and harbor mold and insect infestations. Infrared cameras can distinguish between wet and dry by measuring the thermal characteristics of wet materials.

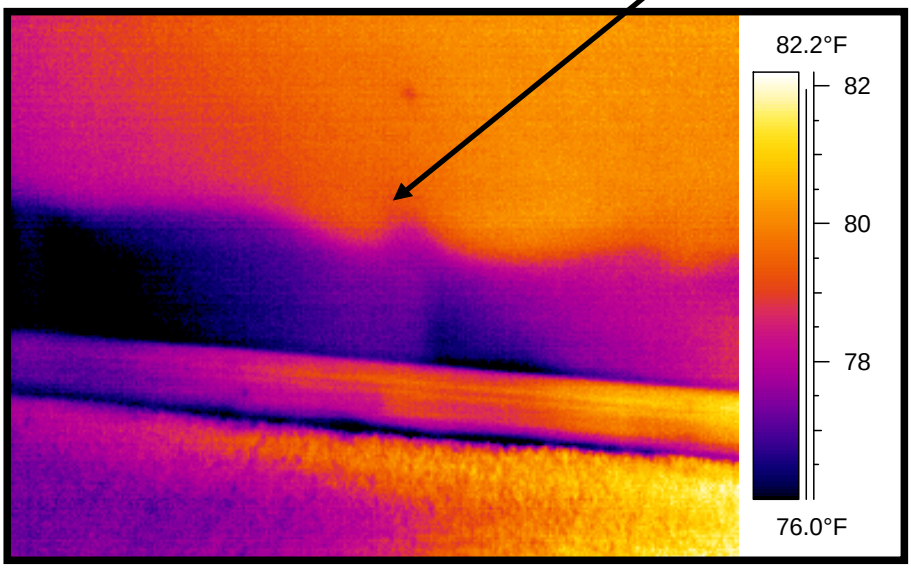
Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Water Infiltration Detection



IR Text Comment	Value
Location	Guest Bedroom
Sub location	Closet
Fault	Moisture Detected

IR Image



IR information	Value
Date of creation	4/19/2008
Time of creation	3:35:03 PM
File name	Ir_0096.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	82.3°F
IR : min	75.1°F

Observations

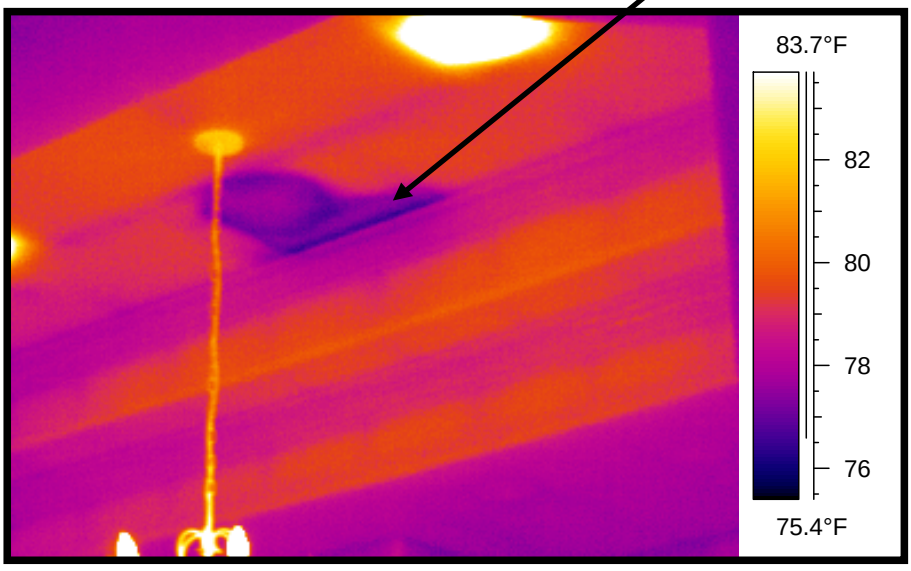
Using our high resolution infrared cameras we can document the extent of damage and provide you with a report that clearly details the extent of damage, this may be used to properly assess damage claims. During remediation and restoration activities, Infrared thermography can evaluate the progress of the drying process per accepted standards.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Water Infiltration Detection

IR Text Comment	Value
Location	Dining Room
Sub location	Ceiling
Fault	Mositure Detected

IR Image



IR information	Value
Date of creation	2/23/2008
Time of creation	1:00:40 PM
File name	Ir_0597.jpg
Camera type	B20 HS NTSC
Camera serial number	25300633
Camera lens	24
Label	**Value**
IR : max	*260.0°F
IR : min	76.4°F

Observations

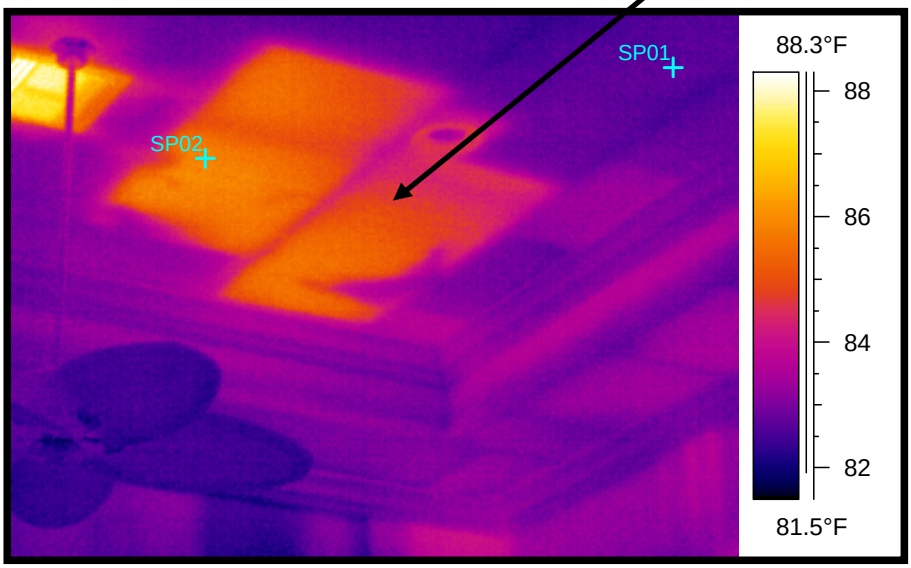
Mold in particular is a growing concern for lenders, developers, investors and homeowners because of the growing numbers of filings of health related law suits. Certain mold can cause a verity of adverse health concern is humans. The first step to mold remediation is to identify and accurately locate all sources of moisture. Our high resolution infrared equipment can instantly image entire room, inspect area that can be physically reached with moisture meters, reveal wet conditions behind surfaces that don't readily show water stains.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Energy Audits

IR Text Comment	Value
Location	Family Room
Sub location	Ceiling
Fault	Approx. 16 SF Missing Insulation

IR Image



IR information	Value
Date of creation	4/2/2007
Time of creation	3:27:57 PM
File name	Ir_0154.jpg
Camera type	B20 HS NTSC
Camera serial number	25300633
Camera lens	24
Label	**Value**
IR : max	88.5°F
IR : min	81.7°F
SP01	82.7°F
SP02	86.0°F

Observations

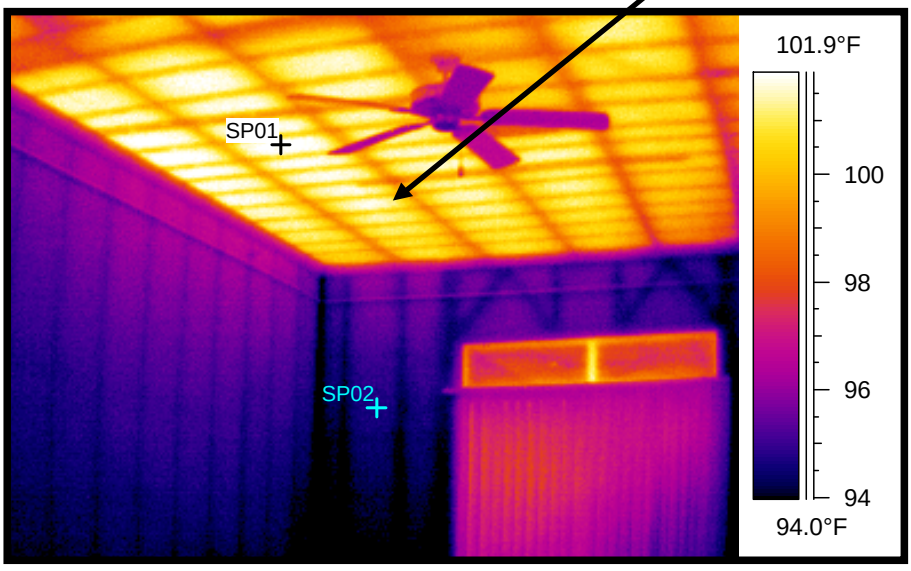
With the dramatic increase in energy prices many owners are becoming more concerned with the efficiency of their building. BDG can perform an energy audit that will identify heat loss and improper/inadequate insulation installation. IR is an efficient tool to evaluate heat loss in a large building.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Energy Audits

IR Text Comment	Value
Location	Building 4
Sub location	Unit 419
Fault	No Attic Insulation

IR Image



IR information	Value
Date of creation	6/19/2008
Time of creation	12:35:05 PM
File name	Ir_0017.jpg
Camera type	B20 HS NTSC
Camera serial number	25300633
Camera lens	45
Label	**Value**
IR : max	102.3°F
IR : min	92.3°F
SP01	102.0°F
SP02	94.7°F

Observations

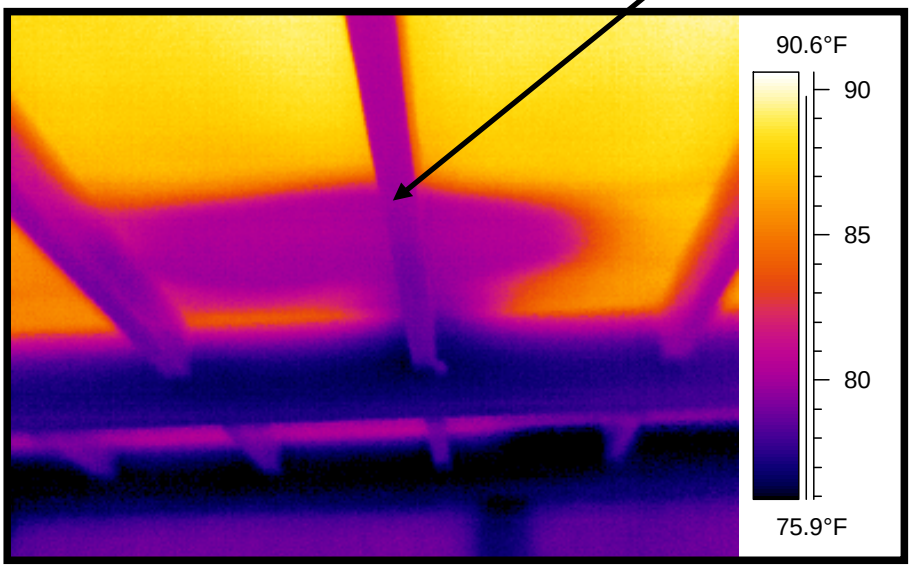
Many residential builders are using thermography to achieve HERS ratings that they are getting with their new homes. Recently we performed an inspection on a new upscale mixed use apartment complex in Austin, TX. During our routine inspection we found that 60% of the 4th top/floor (over 40 thousand SF) did not have attic insulation. This building had all ready received its final inspection and Certified of Occupancy. Obviously this was an oversight at many different levels, but our findings prompted an immediate response from the developer/builder to rectify the deficiency.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Commercial Structures

IR Text Comment	Value
Location	Parking Garage
Sub location	East Side
Fault	Confirmed Moisture

IR Image



IR information	Value
Date of creation	11/3/2007
Time of creation	9:30:50 PM
File name	Ir_0892.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	90.0°F
IR : min	74.8°F

Observations

Infrared thermography was used to identify the source of a persistent leak at this parking structure. It was easily determined that the water feature (fountain) above the parking structure had a leak in the membrane causing water to migrate throughout the concrete structure. The time and expense to perform an initial, well-focused evaluation will save the building owner/manager money in the long run and result in repairs that extend the service life of the building.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Storm Damage Assessment

IR Text Comment	Value
Location	145 West Street
Sub location	West Elevation
Fault	Water Damage - Confirmed

IR Image

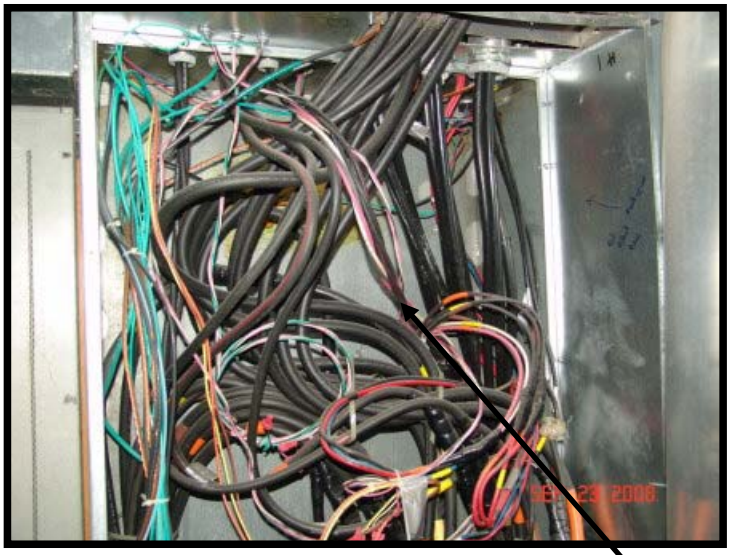
IR information	Value
Date of creation	6/16/2005
Time of creation	2:47:04 PM
File name	Ir_0526.jpg
Camera type	B20 NTSC
Camera serial number	21802983
Camera lens	24
Label	**Value**
IR : max	91.9°F
IR : min	79.9°F

Observations

After the hurricanes in Florida in 2004 & 2005 our infrared cameras were put through the test. Our quick response to storm damaged homes and buildings provided the owners accurate documentation for insurance companies. Unfortunately after catastrophic events adjusters may not get to your property for several weeks, during that time moisture damaged materials may dry and not be a part of your claim.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Predictive Maintenance (PdM)



IR Text Comment	Value
Location	Distribution Room 4
Sub location	Junction Box Panel FF
Fault	NETA - REPAIR CODE A

IR Image

IR information	Value
Date of creation	9/23/2008
Time of creation	9:30:39 AM
File name	Ir_0528.jpg
Camera type	B20 HS NTSC
Camera serial number	25300633
Camera lens	45
Label	**Value**
IR : max	93.4°F
IR : min	71.1°F
SP01	91.3°F

Observations

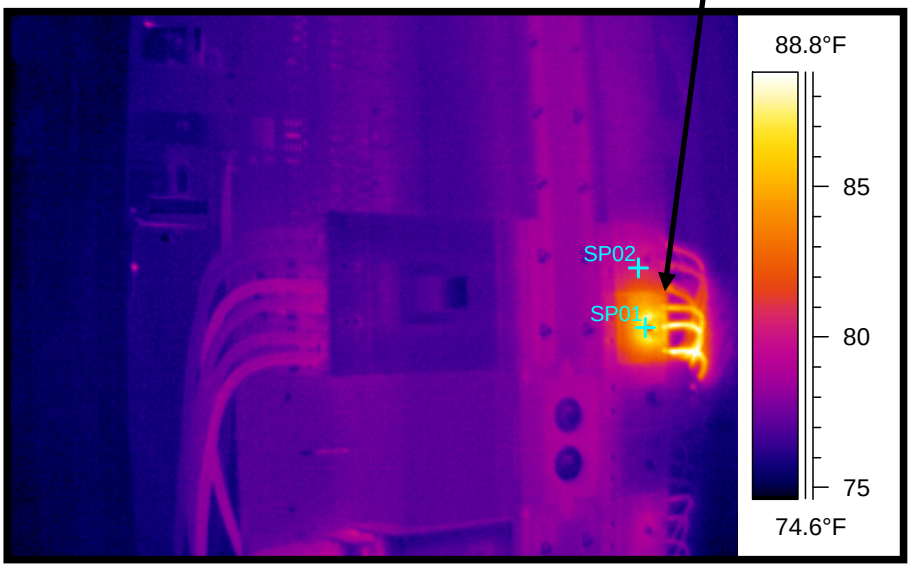
Heat is often an early symptom of electrical failures. Using infrared thermography for predictive maintenance monitors the temperature of critical equipment and electrical components. By performing these routine inspections the likelihood of unplanned downtime due to electrical failure are significantly reduced.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Predictive Maintenance (PdM)

IR Text Comment	Value
Location	Distribution Room G
Sub location	Switch Panel 9
Fault	NETA - REPAIR CODE A

IR Image



IR information	Value
Date of creation	9/23/2008
Time of creation	11:23:30 AM
File name	Ir_0548.jpg
Camera type	B20 HS NTSC
Camera serial number	25300633
Camera lens	45
Label	**Value**
IR : max	89.7°F
IR : min	74.5°F
SP01	84.7°F
SP02	80.9°F

Observations

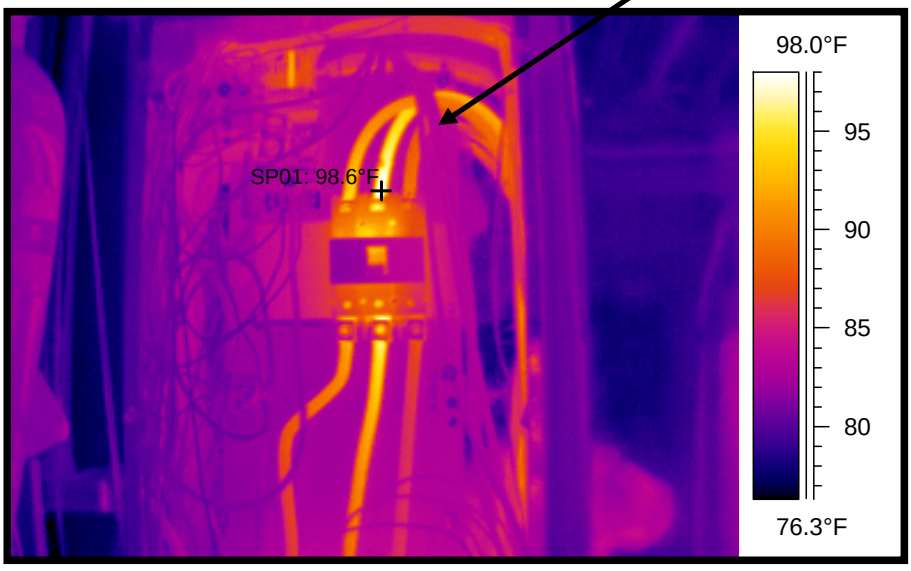
Studies by the Federal Energy Management Program (FEMP) estimate a properly maintained infrared predictive maintenance program can provide a savings of 30% to 40% over reactive maintenance. The return on investment of starting a predictive maintenance is approximately 10 times the cost of the inspection service.

Report:	Thermographer:
Sample Report	Building Diagnostics Group, Inc

Predictive Maintenance (PdM)

IR Text Comment	Value
Location	Distribution Room A
Sub location	Panel F
Fault	NETA - REPAIR CODE A

IR Image



IR information	Value
Date of creation	9/23/2008
Time of creation	10:01:42 AM
File name	Ir_0535.jpg
Camera type	B20 HS NTSC
Camera serial number	25300633
Camera lens	45
Label	**Value**
IR : max	98.9°F
IR : min	76.2°F
SP01	98.6°F

Observations

Infrared inspections are the first line of defense in a predictive maintenance program. Our technicians can quickly measure the compare heat signatures for each piece of equipment or electrical panel without disturbing daily operations.

Building Diagnostics Group, Inc
8343 Roswell Road, Suite 381,
Atlanta, GA 30350.

SW Florida Office: (239) 567-2888
Atlanta, Georgia Office: (770) 823-6246
Toll Free/Nationwide Service: (888) 317-4568

Email: info@buildingdiagnosticsgroup.com
Web: www.buildingdiagnosticsgroup.com

BUILDING DIAGNOSTICS GROUP™