

Infrared Inspection Report

Description: Thermal Properties Comparison

Client:

Greenblock Worldwide Corp
759 South Federal Hwy
Stuart, Fl. 34997
800-216-1820

Project Location:

HomeCrete Homes Model
225 Bayshore Drive
Port St. Lucie, Fl.



Inspection Date:
11/16/2007

Job #:
111607.001

Certified Infrared Thermographer:

Scott Eves

Level III # 7187

Building Science # 2981



BlueStar Infrared
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Stuart, Fl. 34997
(772) 215-8794

www.bluestarinfrared.com
Scott@bluestarinfrared.com

Forward

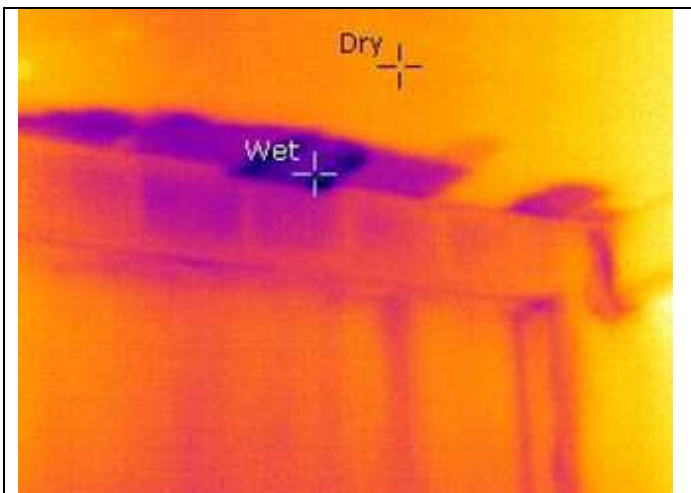
This Report of Infrared inspection provides documentation of thermal patterns detected in your structure as they relate to thermal insulating properties of ICF building construction.

This Infrared Survey Report meets the documentation requirements of the Infraspection Institute Guideline for Infrared Inspection of Building Envelopes and Insulated Roofs, as well as standards published by ASTM.

Introduction

Normally, the surface temperature of building materials are fairly uniform, however, when these materials absorb water from a plumbing or building envelope leak for example, the water will evaporate and cool the effected area by as much as 7°F. The cooler, darker areas appear as distinct wet spots when observed with an infrared camera. Other problems can be identified and documented such as energy inefficiency due to missing or damaged insulation as well as electrical system hot spots.

Below is an example of a thermogram revealing water damage to an interior room.



Description

BlueStar Infrared was contracted by Greenblock Worldwide Corp to perform an Infrared survey of the structures located at 225 Bayshore Drive Port St. Lucie, Fl. . Per Mr. Alexander's' request, an Infrared survey of the above referenced property was conducted on 11/16/2007.

The purpose of this Infrared survey is to attempt to qualitatively, identify and report on differences in thermal insulating properties between ICF construction and other types of construction typically used in homes such as standard CBS construction techniques.

Inspection Summery

For the structural areas inspected, we have recorded a total of 20 thermograms(s) and/or daylight photograph(s) documenting conditions found during our survey. These thermograms and/or daylight photographs appear on the Image Pages found at the end of this report.

Report Summary
Job Number: 111607.001

Report Date: 11/19/20076

Job Number: 111607.001

Type of Inspection: Insulating Properties Comparison

Date of Inspection: 11/16/2007

End User: Jeff Alexander

Project Location: 225 Bayshore Drive
Port St. Lucie, Fl.

Thermographer: Scott Eves

Certification Number: Level III # 7187
Building Science # 29801

Qualified Assistant: N/A

Equipment Used: FLIR B20HSV S/N 333333

Weather Data: Day Skies: Clear / Sunny Night Skies: Clear
Day Highs: 82°F Night Lows: 50
Winds: Calm

Last Precipitation: >24 hrs

of Items Inspected: 3 homes

Of Thermograms: 20



Comments:

- .The thermostats where set to 80 in all 3 model homes late in the afternoon prior to the survey
- The Infrared Survey was performed at approximately 4:30am in order to avoid daytime solar loading.
- This is a qualitative infrared survey and report, a few of the images have average area temperature measurements for comparison only.

Image Page 1

Job No. 111607.001

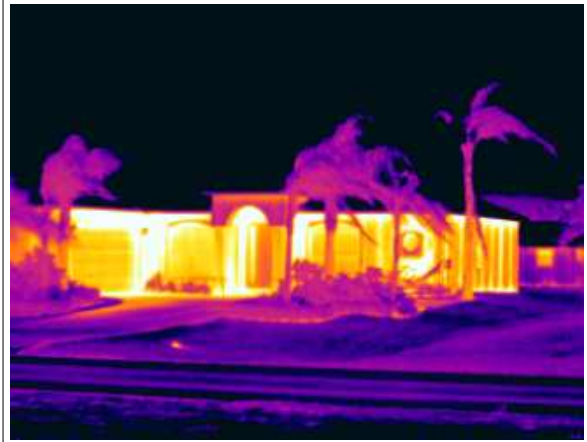
Date: 11/16/2007

Time: 4:30 am

Location: 225 Bayshore Blvd. Front Floor: 1	Structure: Single Family Home Side: West
Inspection Type: Comparison of Thermal Insulation Properties between ICF construction on the Left and CBS construction on the right	



Description: IR Image #1
Thermal image of ICF construction



Description: IR Image #2
Thermal image of neighboring home with CBS construction showing considerably more heat loss

Job No. 111607.001

Date: 11/16/2007

Time: 4:30 am

Location: Bayshore Blvd (neighboring home) Floor: 1	Structure: Single Family Home Side: West
Inspection Type: Comparison of Thermal Insulation Properties between ICF construction and CBS construction.	



Description: IR Image #3
Thermal image of neighboring home with CBS construction showing considerably more heat loss



Description: IR Image #4
Thermal image of neighboring home with CBS construction showing considerably more heat loss

Image Page 2

Job No. 111607.001

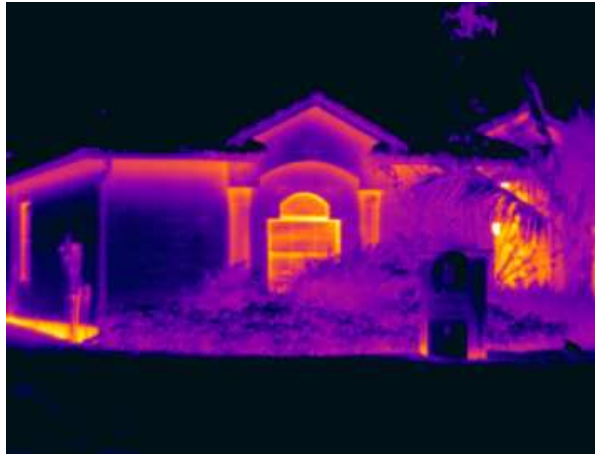
Date: 11/16/2007

Time: 4:30 am

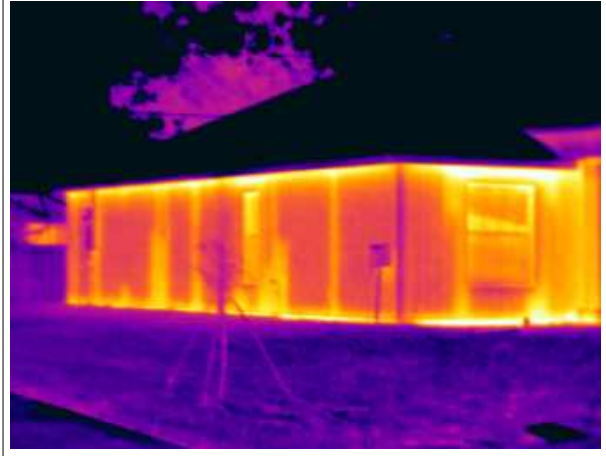
Location: 225 Bayshore Blvd Front
Floor: 1

Structure: Single Family Home
Side: West

Inspection Type: Comparison of Thermal Insulation Properties between ICF construction on the Left and CBS construction on the right



Description: IR Image #5
Thermal image of ICF construction



Description: IR Image #6
Thermal image of neighboring home with CBS construction showing considerably more heat loss

Job No. 111607.001

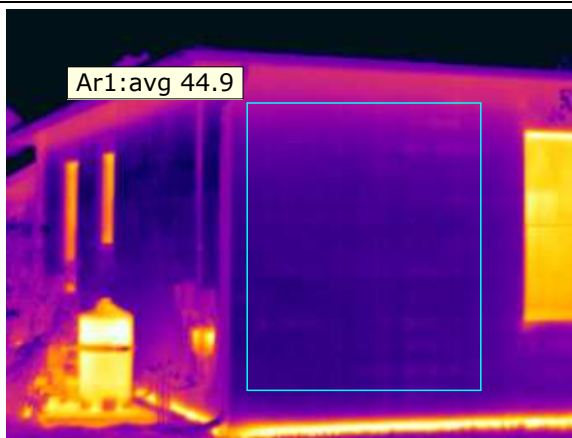
Date: 11/16/2007

Time: 4:30 am

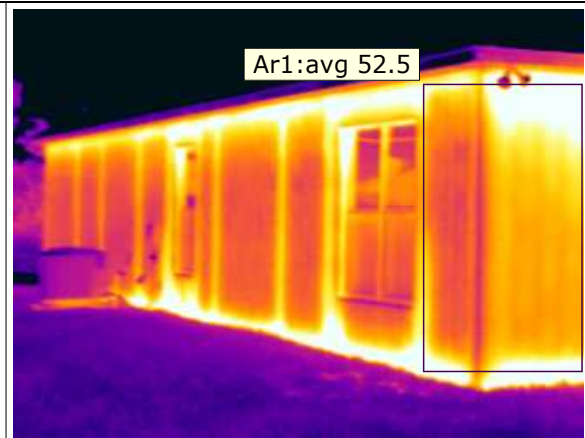
Location: 225 Bayshore Blvd Rear
Floor: 1

Structure: Single Family Home
Side: West

Inspection Type: Comparison of Thermal Insulation Properties between ICF construction on the Left and CBS construction on the right.



Description: IR Image #7
Thermal image of ICF construction



Description: IR Image #8
Thermal image of neighboring home with CBS construction showing considerably more heat loss

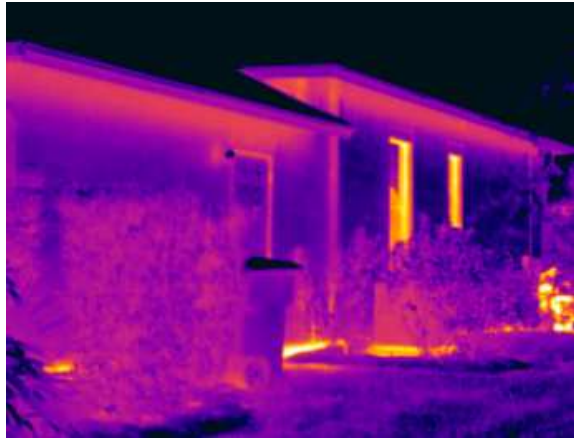
Image Page 3

Job No. 111607.001

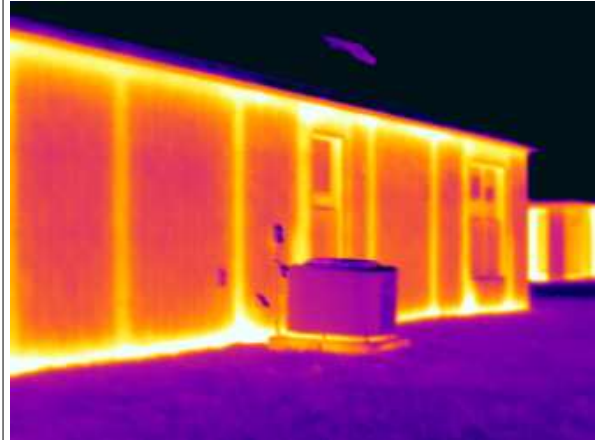
Date: 11/16/2007

Time: 4:30 am

Location: 225 Bayshore Blvd Rear Floor: 1	Structure: Single Family Home Side: North
Inspection Type: Comparison of Thermal Insulation Properties between ICF construction on the Left and CBS construction on the right	



Description: IR Image #9
Thermal image of ICF construction



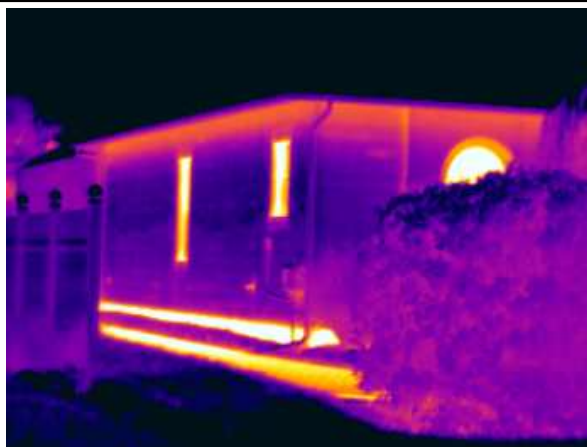
Description: IR Image #10
Thermal image of neighboring home with CBS construction showing considerably more heat loss

Job No. 111607.001

Date: 11/16/2007

Time: 4:30 am

Location: 225 Bayshore Blvd Rear Floor: 1	Structure: Single Family Home Side: South
Inspection Type: Comparison of Thermal Insulation Properties between ICF construction on the Left and CBS construction on the right	



Description: IR Image #11
Thermal image of ICF construction



Description: IR Image #12
Thermal image of neighboring home with CBS construction showing considerably more heat loss

Image Page 4

Job No. 111607.001

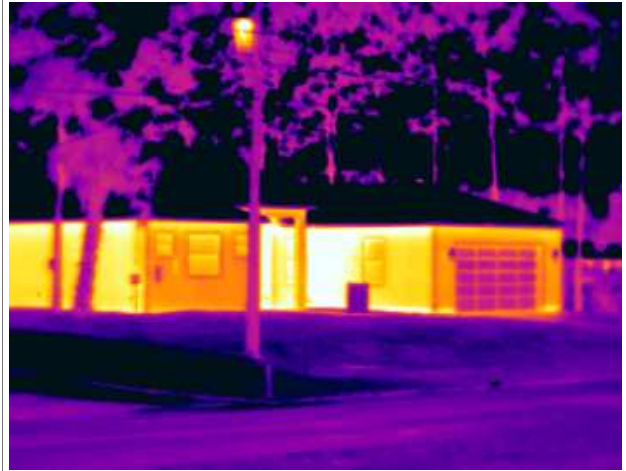
Date: 11/16/2007

Time: 4:30 am

Location: 3771 SW Savona Blvd Floor: 1	Structure: Single Family Home Side: NW
Inspection Type: Comparison of Thermal Insulation Properties between ICF construction on the Left and CBS construction on the right	



Description: IR Image #13
Thermal image of ICF construction



Description: IR Image #14
Thermal image of neighboring home with CBS construction showing considerably more heat loss

Job No. 111607.001

Date: 11/16/2007

Time: 4:30 am

Location: SW Savona Blvd (neighboring home)	Structure: Single Family Home Side: NW
Floor: 1	
Inspection Type: Comparison of Thermal Insulation Properties between ICF construction and CBS construction.	



Description: IR Image #15
Thermal image of neighboring home with CBS construction showing considerably more heat loss



Description: IR Image #16
Thermal image of neighboring home with CBS construction showing considerably more heat loss

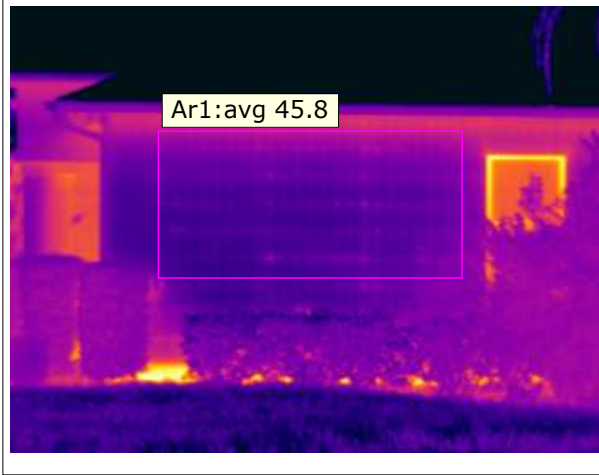
Image Page 5

Job No. 111607.001

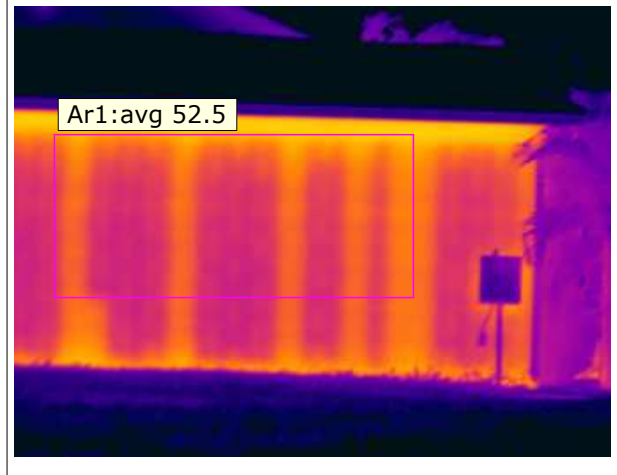
Date: 11/16/2007

Time: 4:30 am

Location: 3771 SW Savona Blvd Floor: 1	Structure: Single Family Home Side: North
Inspection Type: Comparison of Thermal Insulation Properties between ICF construction on the Left and CBS construction on the right	



Description: IR Image #17
Thermal image of ICF construction



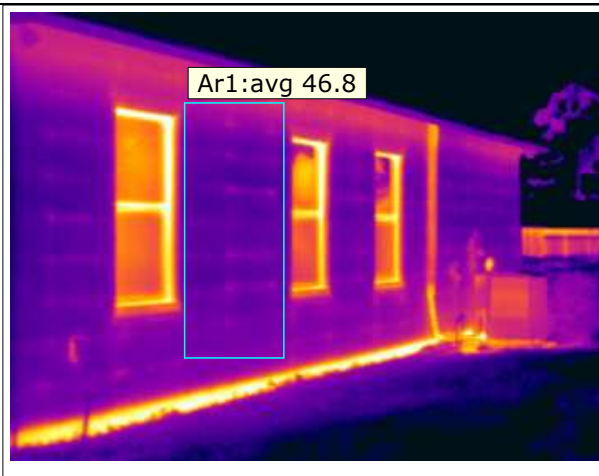
Description: IR Image #18
Thermal image of neighboring home with CBS construction showing considerably more heat loss

Job No. 111607.001

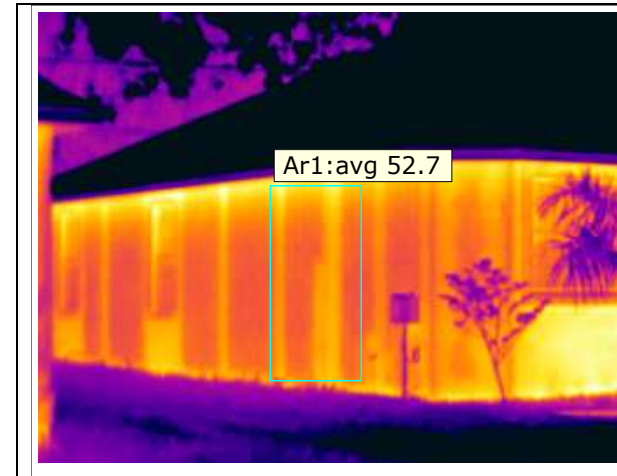
Date: 11/16/2007

Time: 4:30 am

Location: 3771 SW Savona Blvd Floor: 1	Structure: Single Family Home Side: South
Inspection Type: Comparison of Thermal Insulation Properties between ICF construction on the Left and CBS construction on the right	



Description: IR Image #19
Thermal image of ICF construction

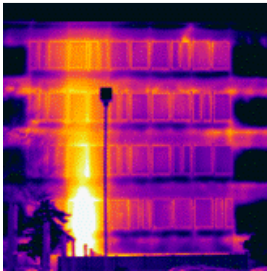


Description: IR Image #20
Thermal image of neighboring home with CBS construction showing considerably more heat loss

NOTES:

BlueStar Infrared Inspection Services help to identify unseen problems affecting buildings such as moisture accumulation, insulation deficiencies and electrical or mechanical faults that would otherwise go unnoticed until it was too late. These hidden problems not only waste precious energy and impact our renewable resources; they can also put our buildings structural integrity and possibly even the occupant's health at risk.

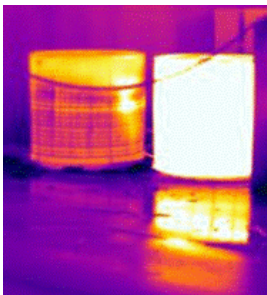
Our Certified Infrared Thermography services identify and document latent problems for a wide range of Commercial, Industrial and Residential applications including: Building Envelope & Commercial Roof Moisture Intrusion surveys, Electrical & Mechanical System Thermal Scanning, as well as Energy Audits and Consulting. We provide the insight needed to make well informed, real time decisions to reduce risk, save money & foster sustainability..

**Building Science**

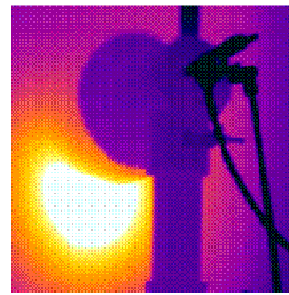
- Quickly Identify Problem Areas
- Moisture Intrusion & Migration
- Stucco - EIFS - DRYVIT Surveys
- Insulation Deficiencies
- Air Infiltration
- Energy Conservation & Comfort
- Help Keep Buildings Green

**Water Damage**

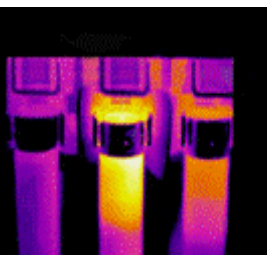
- Post Storm Moisture Surveys
- Building Envelope Leaks
- Plumbing Leaks
- Verify Restoration & Drying
- Help Reduce the Risk of Mold

**Mechanical Equipment**

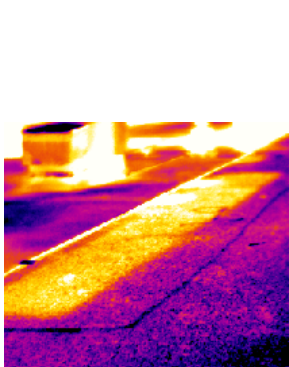
- Identify Abnormal Operations
- Compressors, Pumps & Motors
- Drive Coupling & Belt Misalignment
- Bearing Over Heating
- Over / Under Loading Conditions
- Environmental Control Systems
- Ductwork Separations / Leaks

**Industrial Applications**

- Refractory Insulation Loss
- Steam, Fluid & Heat Transfer
- Process / Product Monitoring
- Production & Handling Systems
- Cold Storage Facilities
- Storage Tank Levels
- Marine Boat Hull Moisture, Delamination & Impact Damage
- Power Generation & Transmission

**Electrical Systems**

- Identify Hot Spots for Repair
- Reduce Risk of Fire Hazard
- Help Avoid Outages & Loss
- Breakers, Switches & Wiring
- Emergency Backup Power
- Battery Charging Stations
- Marine Onboard & Shore Power

**Flat Roof Moisture Surveys**

- Identify Failed. Wet Areas
- Avoid Replacing Good Roofing
- Plan Budgets Based on Facts
- Quality Assurance & Warranty
- Reduce Risk of Structural Damage
- Reduce Energy Waste

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