

4/19/2018 8:11:02 PM



Whitney_Bay.jpg

Thermal Imaging Date: Thursday April 19th, 2018
Time of Thermal Imaging: Approx. 8:00 P.M EST.
Sky Conditions: Clear at scan - Daytime Clear.
Daytime Temperature High: 89 Degrees Fahrenheit
Temperature at time of Infrared Imaging: 81 Degrees Fahrenheit
Wind Speed: 4 mph ESE
Humidity: 37%

Geolocation

Location	N 28° 21' 19.66", W 80° 43' 35.57"
http://maps.google.com/?z=17&t=k&q=28.3555,-80.7265	

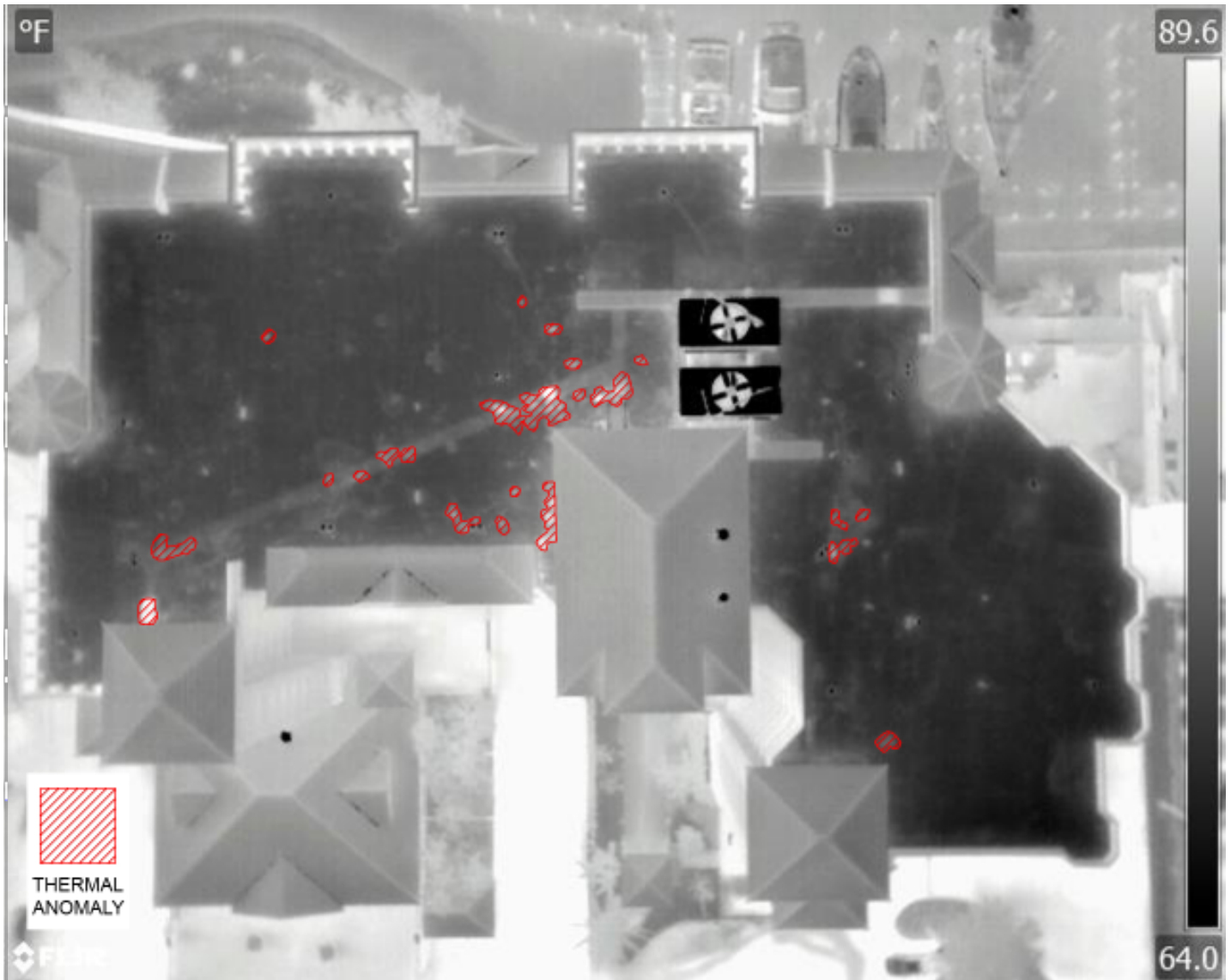
Imaging Performed by: Todd A. Hillhouse (Level III Thermographer)
Roofing Surface: Silicone Coating (Gaco) over SPF.
Surface Condition: Dry at surface. Roof had been inspected by Condo President prior to scan.
Infrared Camera Type: Zenmuse XT-R Powered by FLIR 30hz 640x512 13mm
Imaging Altitude: 250 ft AGL - 500 ft AGL* (maintained 400 ft or less above roof surface)

Visible and Infrared Images were taken 4/19/18 of Whitney Bay Condominiums. Analysis of IR images will be further detailed on the following pages.

MOISTURE VERIFICATION: Infrared Thermography is a powerful tool for Nondestructive Testing and Analysis of flat roofing systems. However, to ensure complete accuracy of the survey results, it is necessary to physically verify the presence of moisture within the roofing system. All indicated anomalies marked in this report images should be physically examined.

PHYSICAL TESTING: Recommendations for physical testing and quantitative analysis indicates a core sample should be taken at the locations of any noted anomalies to verify moisture presence and water penetration. Physical testing and analysis can also be accomplished through the use of a moisture meter and electronically charged pin probes.

4/19/2018 7:58:09 PM



Overall_IR.jpg

Geolocation

Location

N 28° 21' 25.10", W 80° 43' 32.91"

<http://maps.google.com?z=17&t=k&q=28.3570,-80.7258>

Pictured above is a top down view infrared image in the "white is hot" palette. Areas that indicate temperature anomalies are marked with a red striped pattern. In many instances the marked areas showed temperature differences greater than 15 degrees. Several of these spot measurements will be shown in more detail on page 4.

Due to the high heat capacity of water over most surface materials along with the physical verification (performed by condo president) that the roof was dry at time of IR scan, the areas marked with red should be physically inspected by a facility manager or licensed roofing contractor.

This increase in temperature displayed above is often an indication of water penetration or water saturation and will require a physical inspection to verify.

4/19/2018 7:58:09 PM



Overall_Visible.jpg

Geolocation

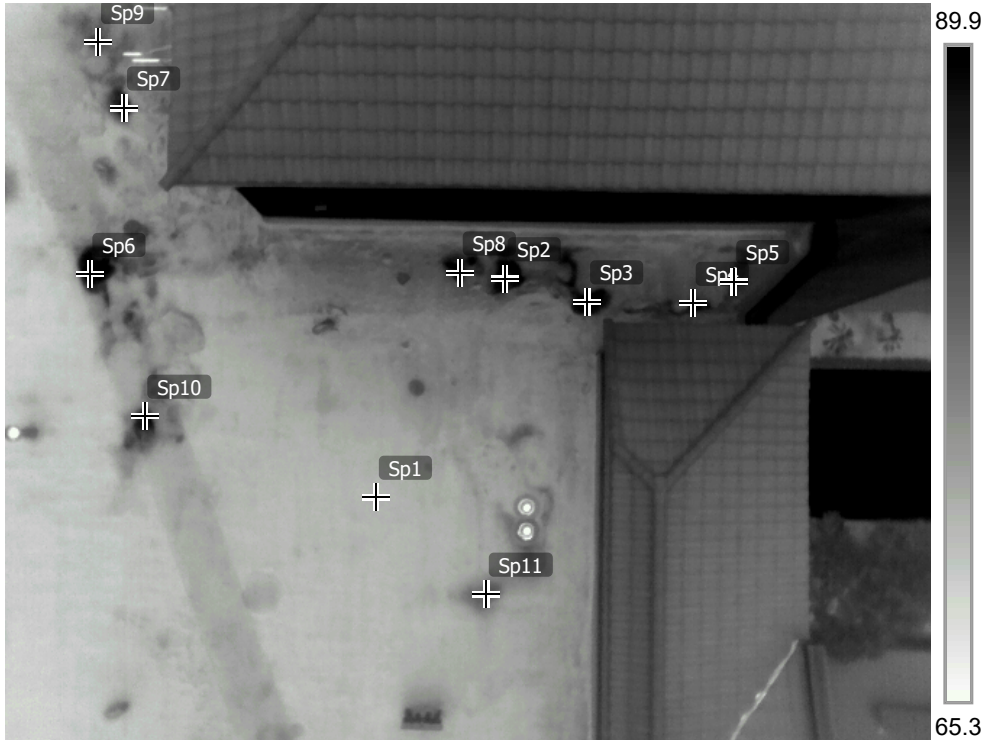
Location

N 28° 21' 25.10", W 80° 43' 32.91"

<http://maps.google.com?z=17&t=k&q=28.3570,-80.7258>

Pictured above is a visible RGB aerial photo of Whitney Bay Condominium taken in a top down view for IR and report reference. A silicone based coating was applied over sprayed foam. Areas of questionable anomalies that should be physically investigated are marked above with a red striped pattern. In many instances the marked areas showed temperature differences greater than 15 degrees. These measurements are shown on the following page.

4/19/2018 8:05:39 PM



DJI_0044.jpg

4/19/2018 8:05:39 PM



Close_Up_Visible.jpg

Measurements

Sp1	72.5 °F
Sp2	87.8 °F
Sp3	89.4 °F
Sp4	90.5 °F
Sp5	88.0 °F
Sp6	93.9 °F
Sp7	89.0 °F
Sp8	88.5 °F
Sp9	84.7 °F
Sp10	88.1 °F
Sp11	81.9 °F

Parameters

Emissivity	0.85
Refl. temp.	71.6 °F

Pictured above on this page is a "Black is Hot" Infrared image along with a Visible RGB image for reference to the left.

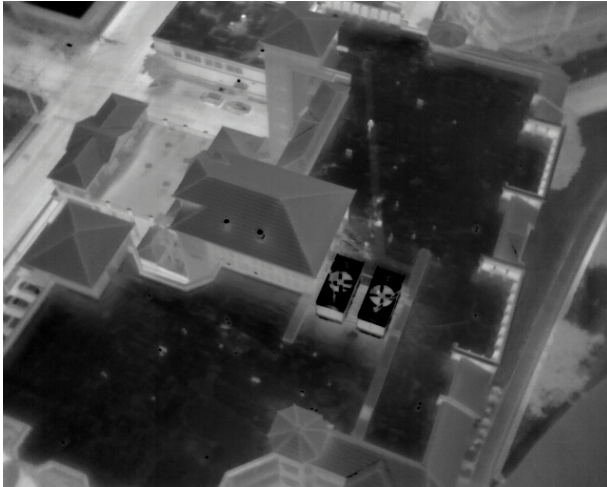
Spot 1 noted in the thermal image above was used as a reference point for baseline temperature. Note that spot 6 is 20 degrees warmer than the reference point. This occurs over the walkway.

All areas marked with red should be physically inspected by a facility manager or licensed roofing contractor.

Additional IR photos and a visible reference photo are shown on page 5.

Qualitative Infrared Report by Planet Inhouse, Inc.
River Side Condominium
Cocoa, FL USA
Roof System: SPF Roof w/ Gaco Silicone Coating.

4/19/2018 8:09:08 PM



DJI_0058.jpg
Parameters

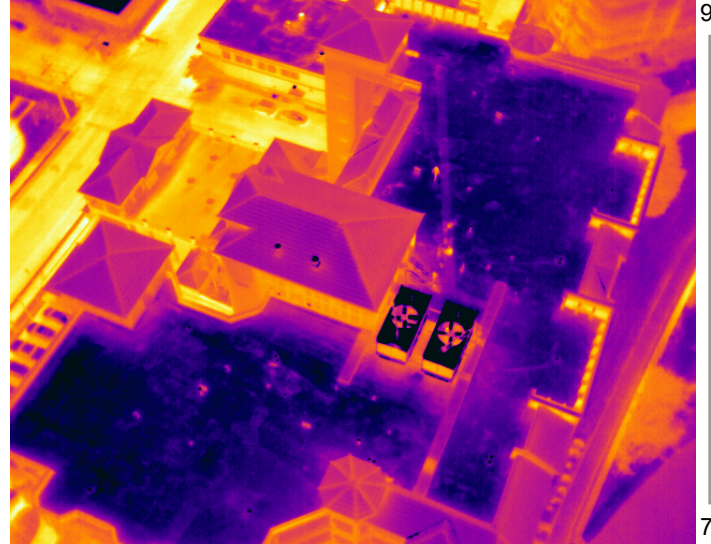
Emissivity	0.85
Refl. temp.	71.6 °F

Geolocation

Location N 28° 21' 25.72", W 80° 43' 31.44"

<http://maps.google.com?z=17&t=k&q=28.3571,-80.7254>

4/19/2018 8:09:11 PM



DJI_0059.jpg
Parameters

Emissivity	0.85
Refl. temp.	71.6 °F

Note

Man on Roof - near Walkway

4/19/2018 8:09:10 PM



Whitney_Bay_South_West_Angle.jpg