

Sample Grouted Cell Report

Qualitative Infrared Thermographic Survey of Masonry Walls

Sample Retail Store



October 3, 2009

Prepared for:
**Preferred Client
Example Construction
Contractors**

October 5, 2009

Mr. Preferred Client
Example Construction Contractors
123 Sample Street
Your Town, USA

**PROJECT: Sample Retail Store
Your Town, USA.**

Dear Mr. Client:

Herein, please find the report from the qualitative infrared (IR) thermographic survey of masonry walls at the new facilities of Sample Retail Store in Your Town, USA.

The building was inspected on October 4, 2009. The IR thermographer was Greg Stockton.

We imaged all masonry walls from the outside and inside of the building. Matching IR and visual images are included. We marked the faults with white arrows directly on the IR images of the walls where we found misplaced, misaligned or missing grouted cells. The following pages show areas where at least one problem exist.

Grouted cells and all other solid areas are displayed in the infrared images as 'light warm', so solid cells are lighter than empty cells. The chemical reaction from recent pours show as hot in the IR imagery.

This report consists of a printed copy of this file, and a CD-ROM. All files are contained on the CD-ROM, including a PDF with all thermographs taken -so we leave the final analysis of the walls to your structural engineers.

Please let me know if I can be of assistance to you by calling 888-SCAN-4-IR . We appreciate your business and enjoyed working with your company.

Sincerely,



Certified Infrared Thermographer #3583
Member of BlockWallScanIR™



Understanding Building Infrared Imagery

General

Infrared imagery is often a grayscale picture whose scales (or shades of gray) represent the differences in temperature and emissivity (opposite of reflectivity) of objects in the image. As a general rule, objects in the image that are lighter in color are warmer, and darker objects are cooler. No object in the images is detected via visible light wavelengths (400-700 nanometers) rather, only from infrared wavelengths in the 3000-5000 or 8000-14000 nanometers range. Lights and other relatively hot objects are very evident, but as a result of their heat...not light emissions.

Procedure

When an image is taken with an infrared camera, it is often recorded onto videotape and/or digitally saved to an on-board storage device. The image may be then modified in a number of ways to enhance its value to the end user. In the case of the printouts provided in this report, the building images were digitized, saved and converted to JPEG images, then adjusted for color, contrast and brightness before being scaled and placed in this file. The file was then printed on photographic paper by using a photo quality ink-jet printer.

After sunset, wall areas that contain grout are a different color because the heat (from daylight sunshine and the resulting thermal change) radiates from these areas longer than those areas with empty or insulated cells. When the building structure cools down, we scanned the walls in an organized method with a sensitive infrared camera to detect the sources of heat and record them for later analysis. Since we can "see" all areas with more mass (filled cells) we can immediately determine if there is grout missing.

When structural deficiencies were found, we made a matching visual image with a digital photographic camera for reference.

For more information on this testing method, please visit our web site...

www.BlockWallScanIR.com

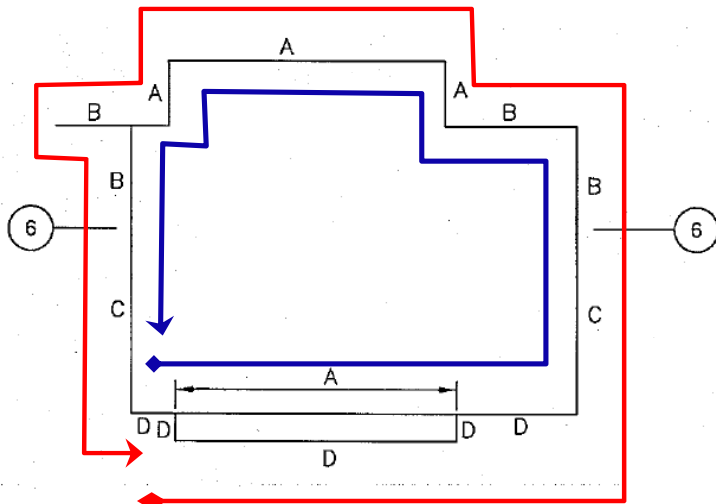
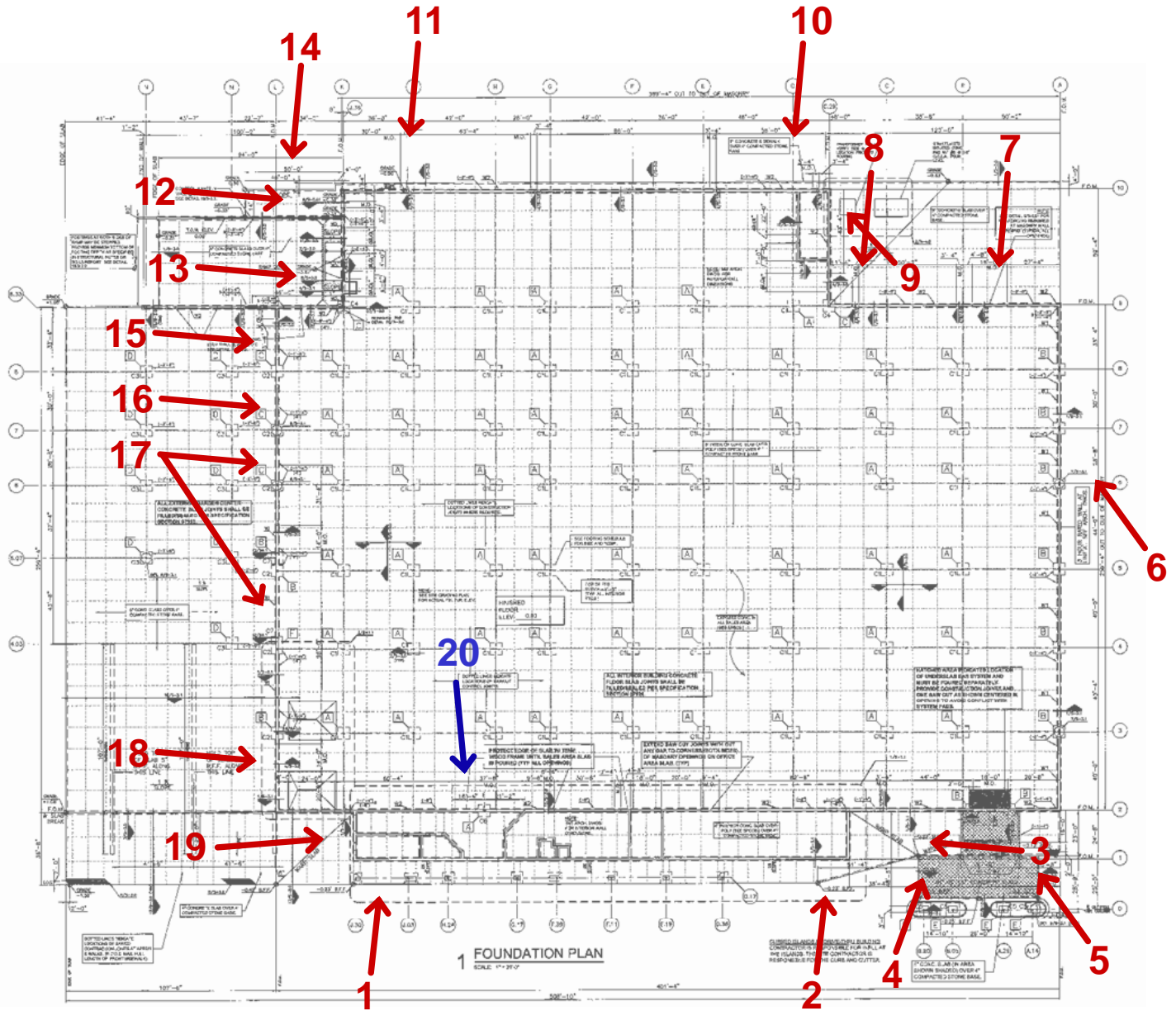


KEY TO ARROWS

 Vertical Reinforcement Fault

 Horizontal Reinforcement Fault

ATTACHMENT A - DRAWING



DIRECTION OF SURVEY

- Outside
- Inside

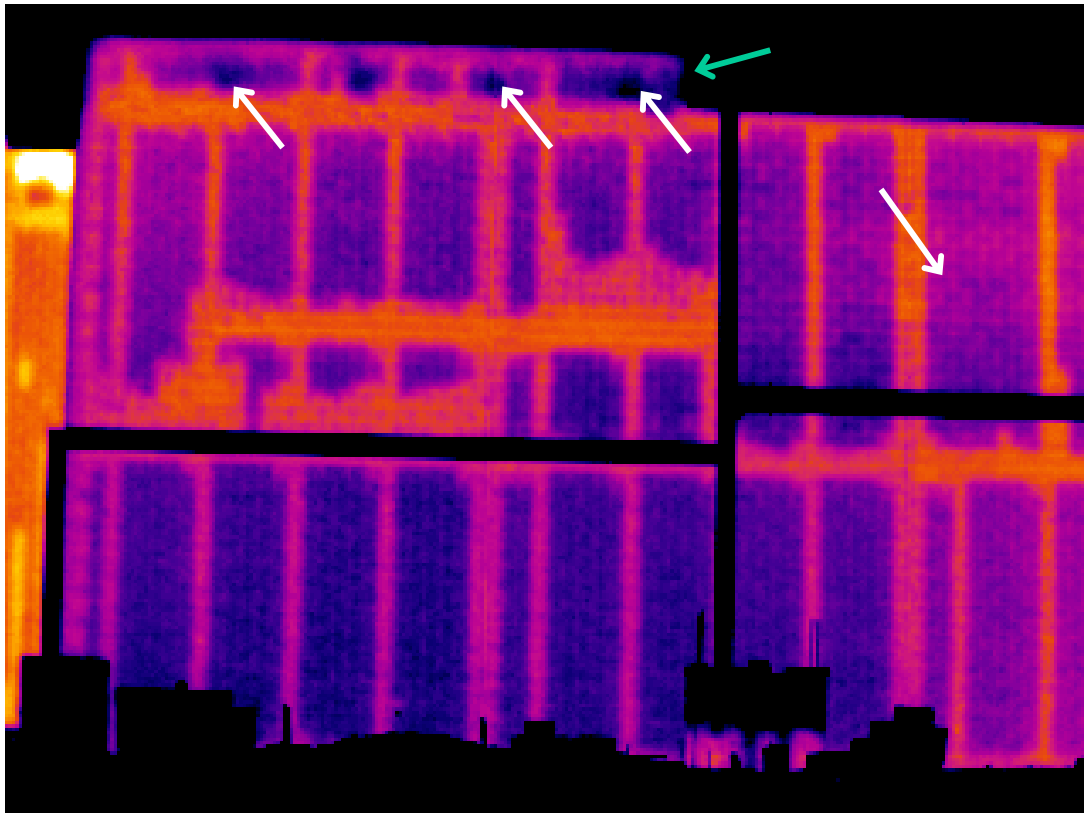
NOTE: Other structural wall details have been deleted from this sample.

THERMOGRAPHIC REPORT # 1

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line 1
From Column J.30 to H.24
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule



THERMOGRAPHIC REPORT # 2

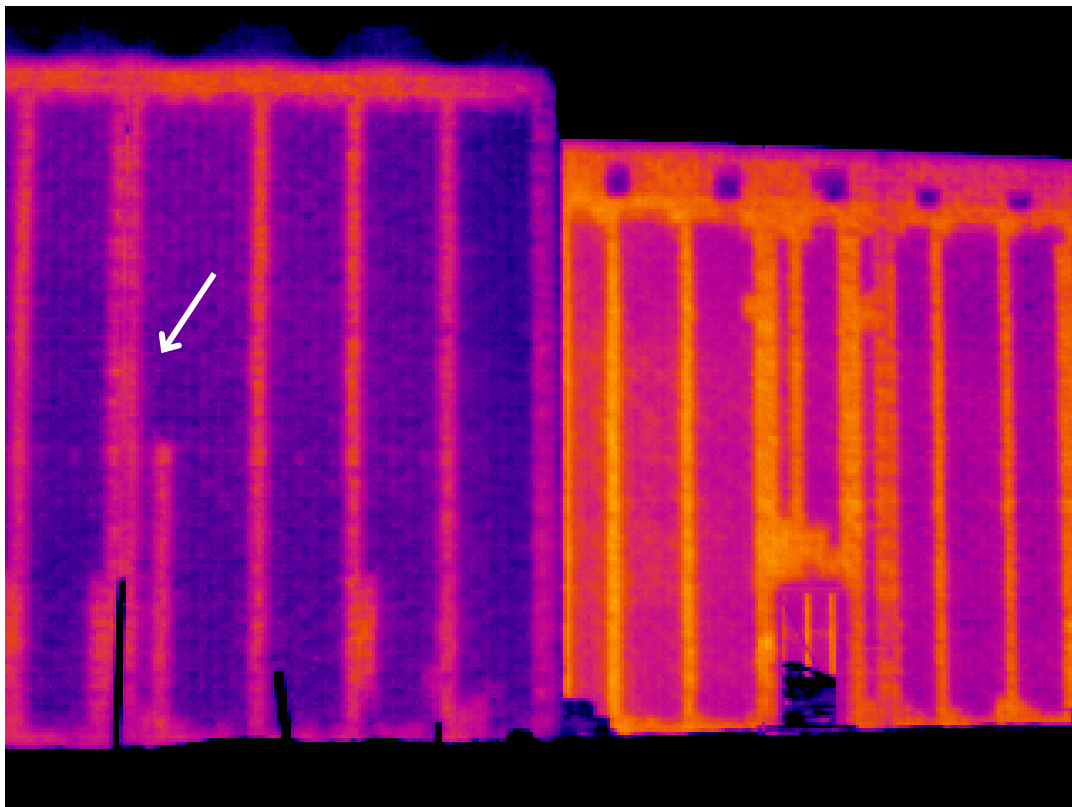
Sample Retail Store
Your Town, USA
October 4, 2009



Authorized Service Contractor

Down Column Line 2
From Column D to C.16
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule

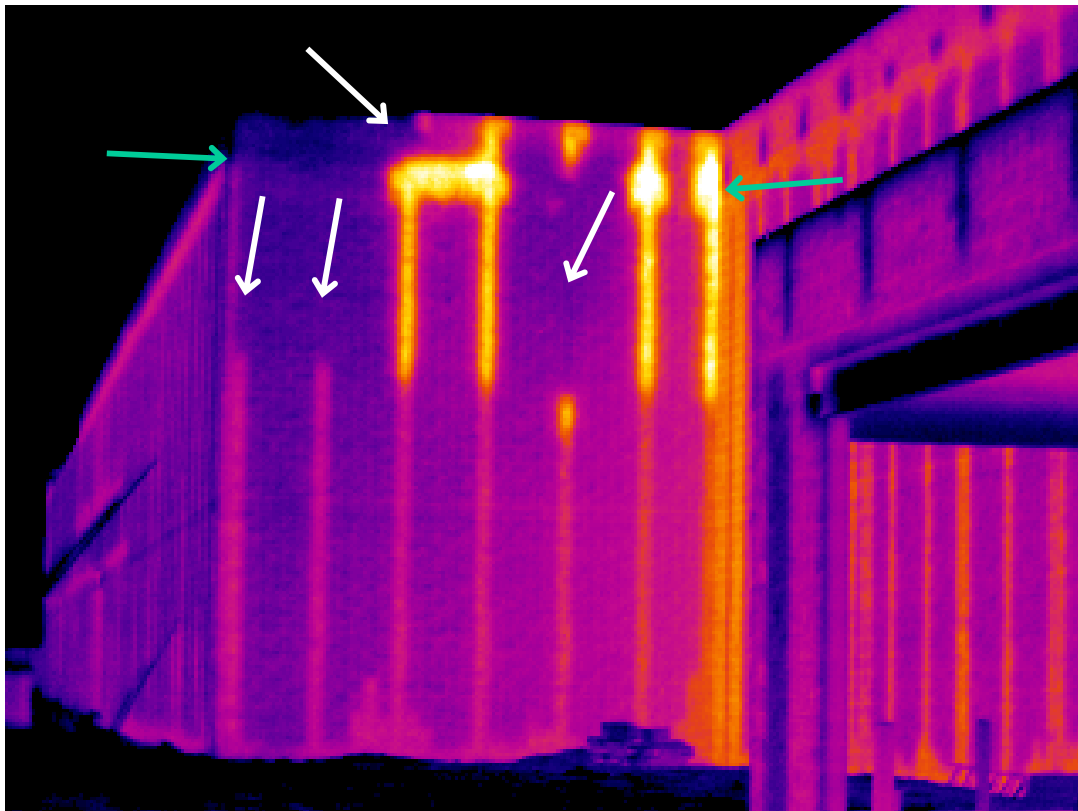


THERMOGRAPHIC REPORT # 3

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line C.16
From Column 1 to 2
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule

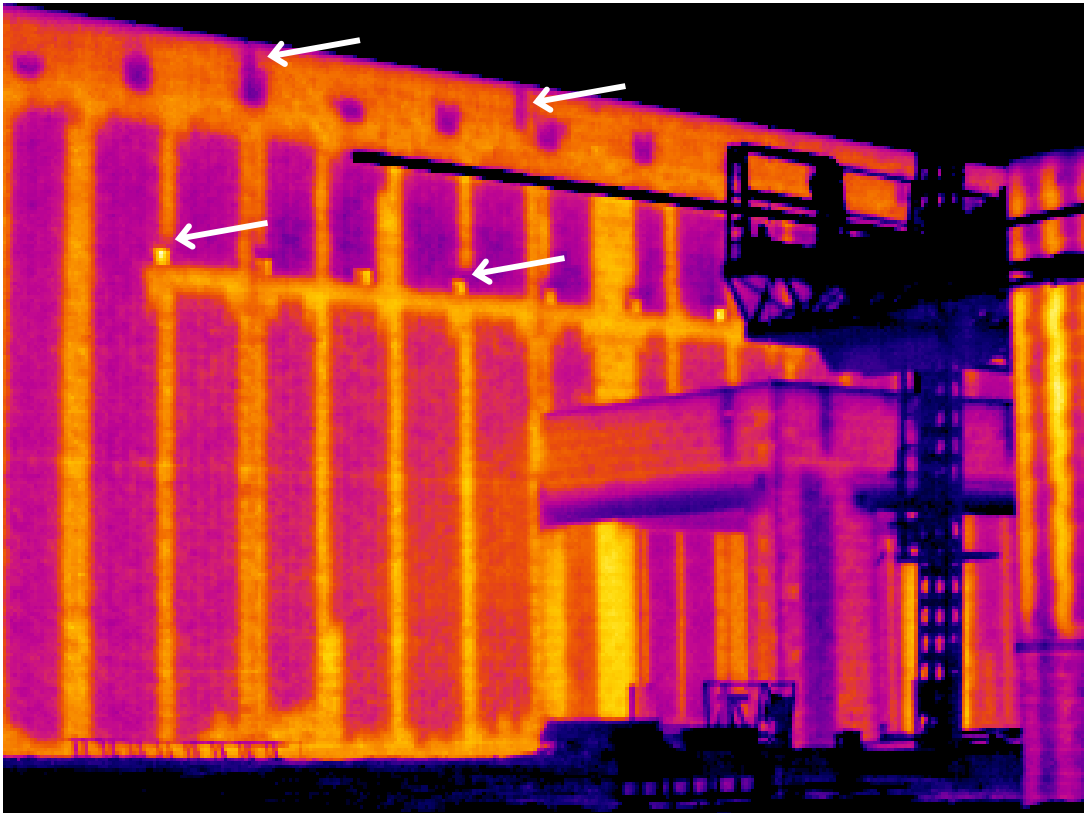


THERMOGRAPHIC REPORT # 4

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line 2
From Column C to B
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule



THERMOGRAPHIC REPORT # 5

Sample Retail Store
Your Town, USA
October 4, 2009

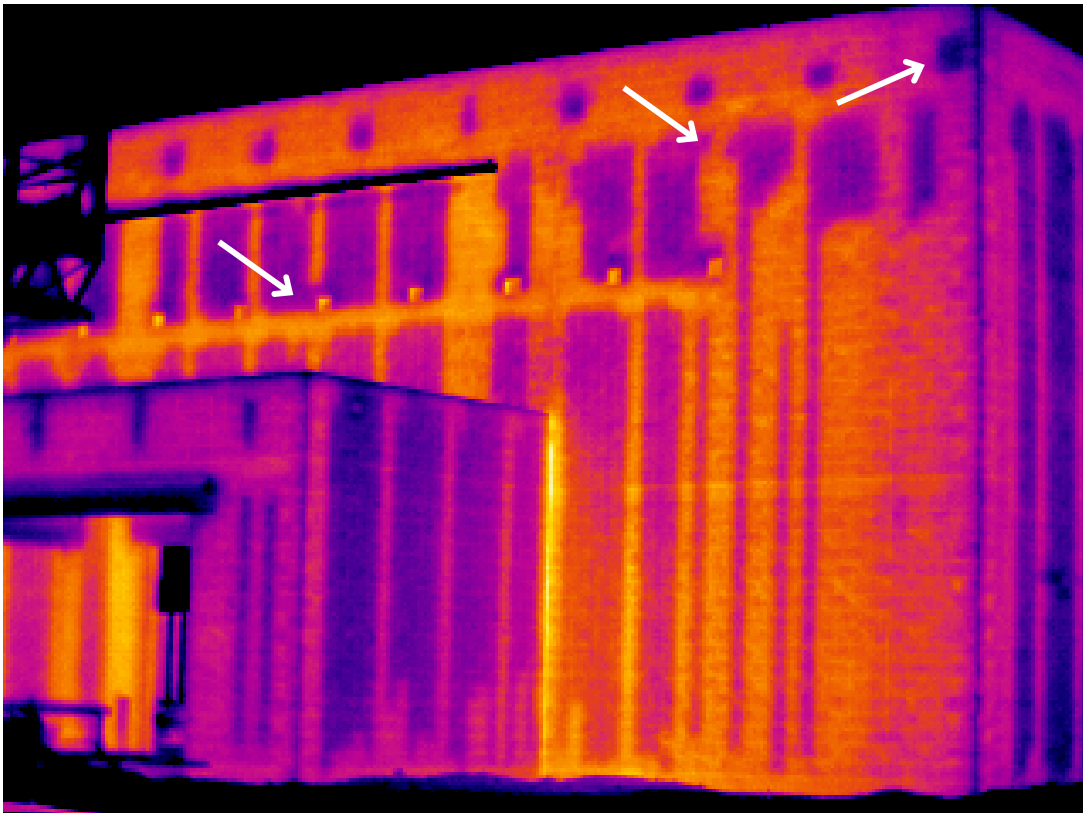


Authorized Service Contractor

Down Column Line 2
From Column B to A
Description Grouted cells as indicated.

Solid areas are light-colored.

Grouted cells 48" O.C.
Structural Grouting Schedule



THERMOGRAPHIC REPORT # 6

Sample Retail Store
Your Town, USA
October 4, 2009

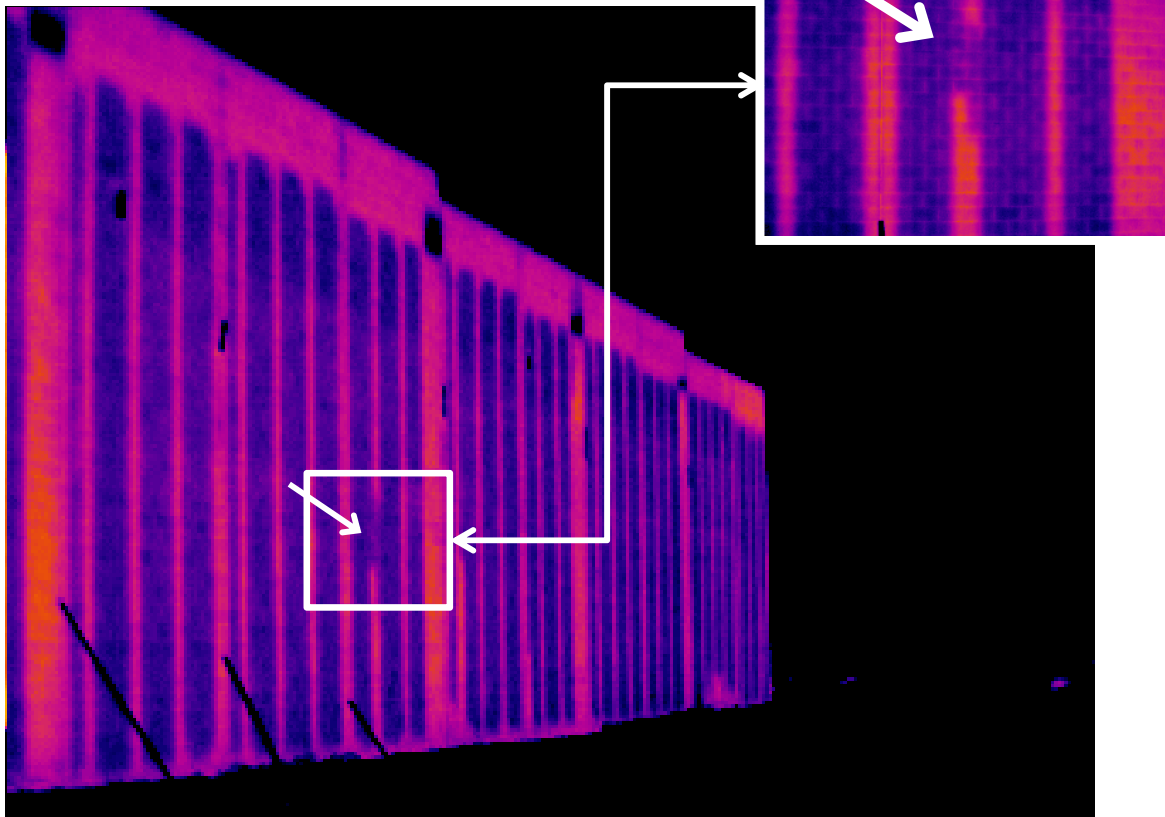


Authorized Service Contractor

Down Column Line A
From Column 5 to 6
Description Grouted cells as indicated.

Solid areas are light-colored.

Grouted cells 48" O.C.
Structural Grouting Schedule

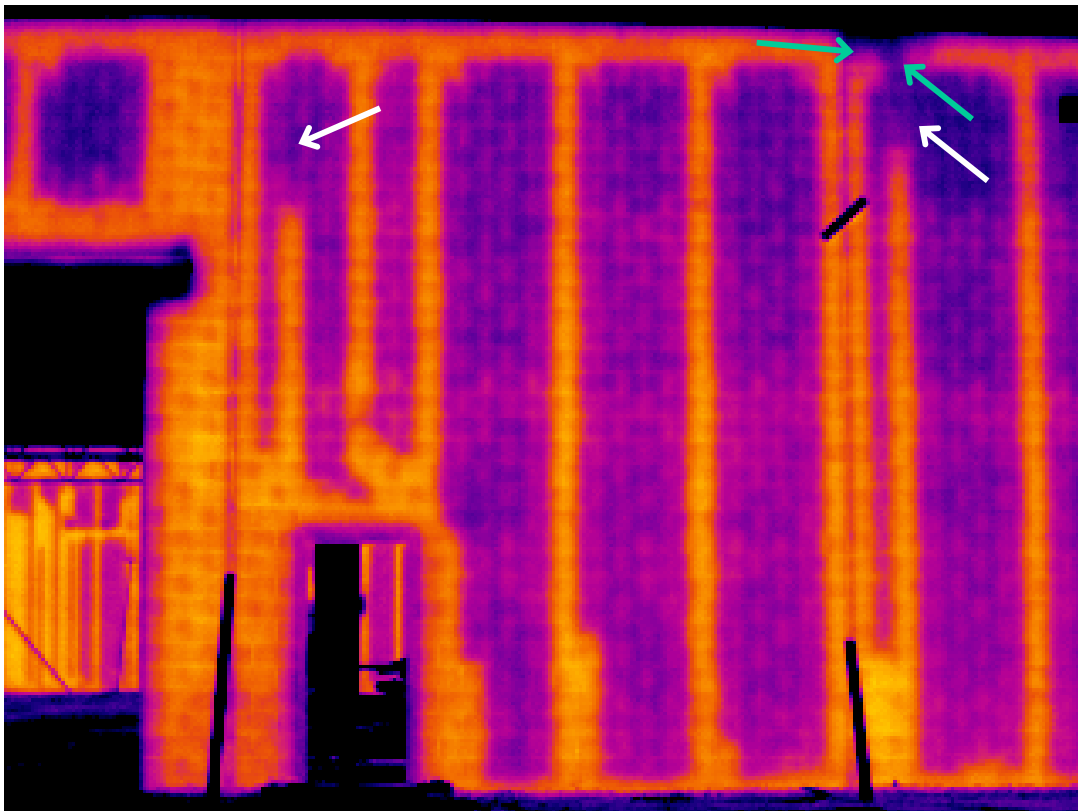
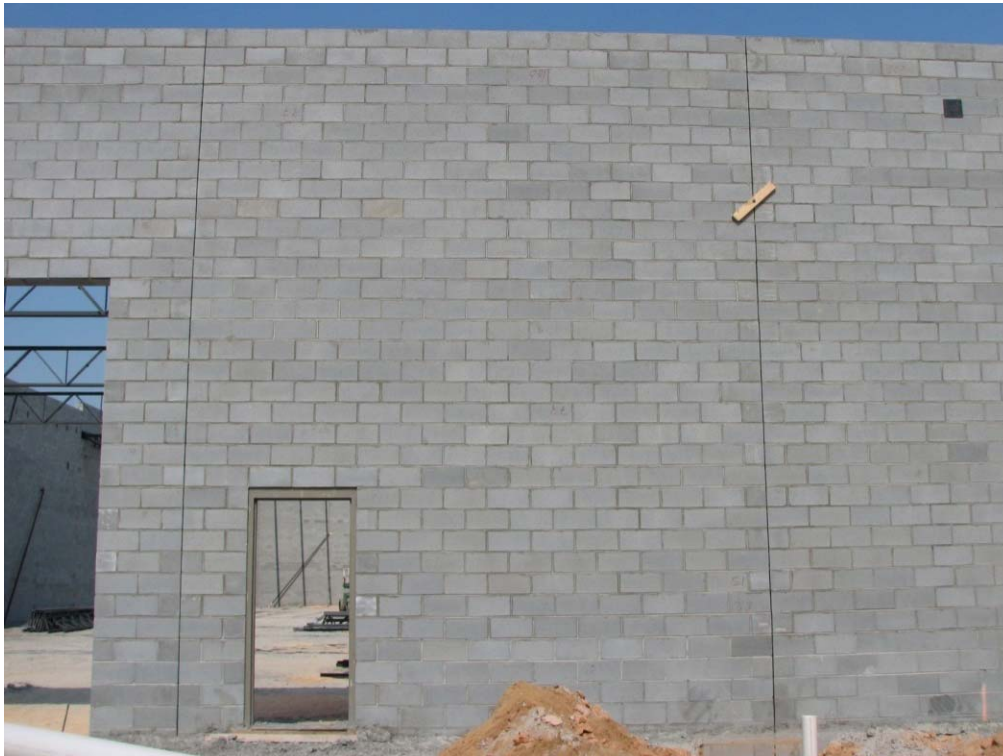


THERMOGRAPHIC REPORT # 7

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line 9
From Column A.40 to B.10
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule

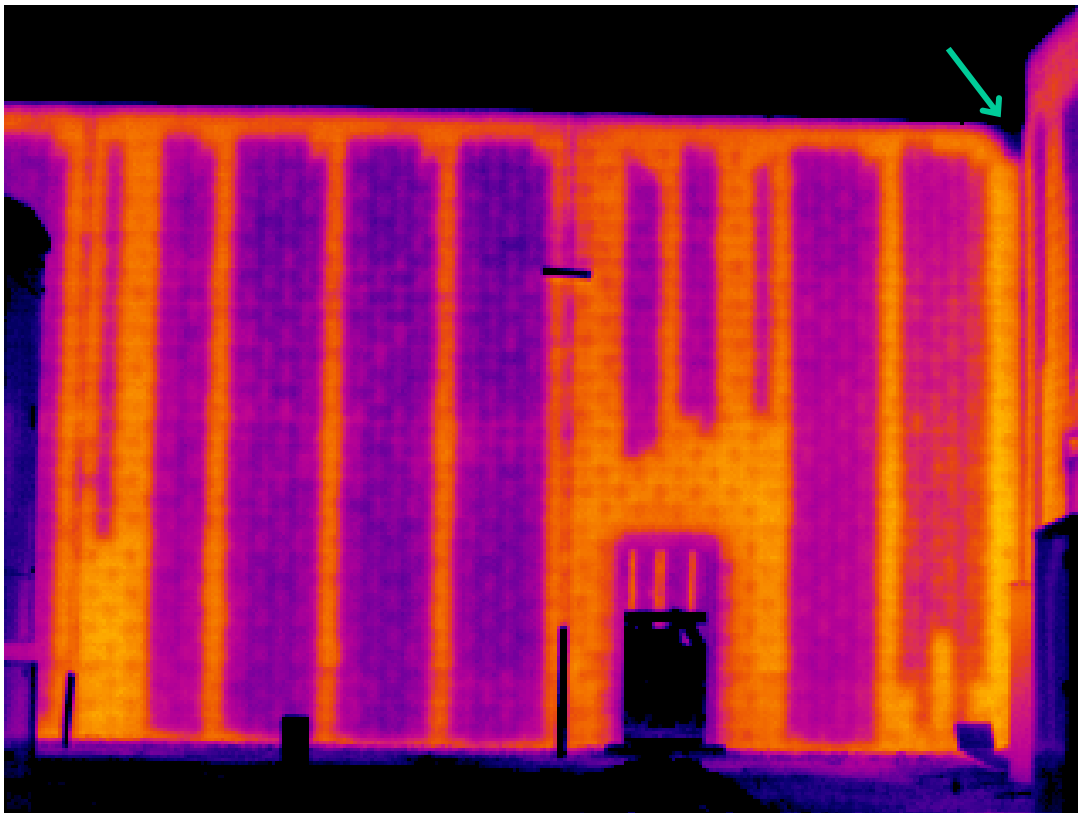


THERMOGRAPHIC REPORT # 8

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line 9
From Column C to C.29
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule



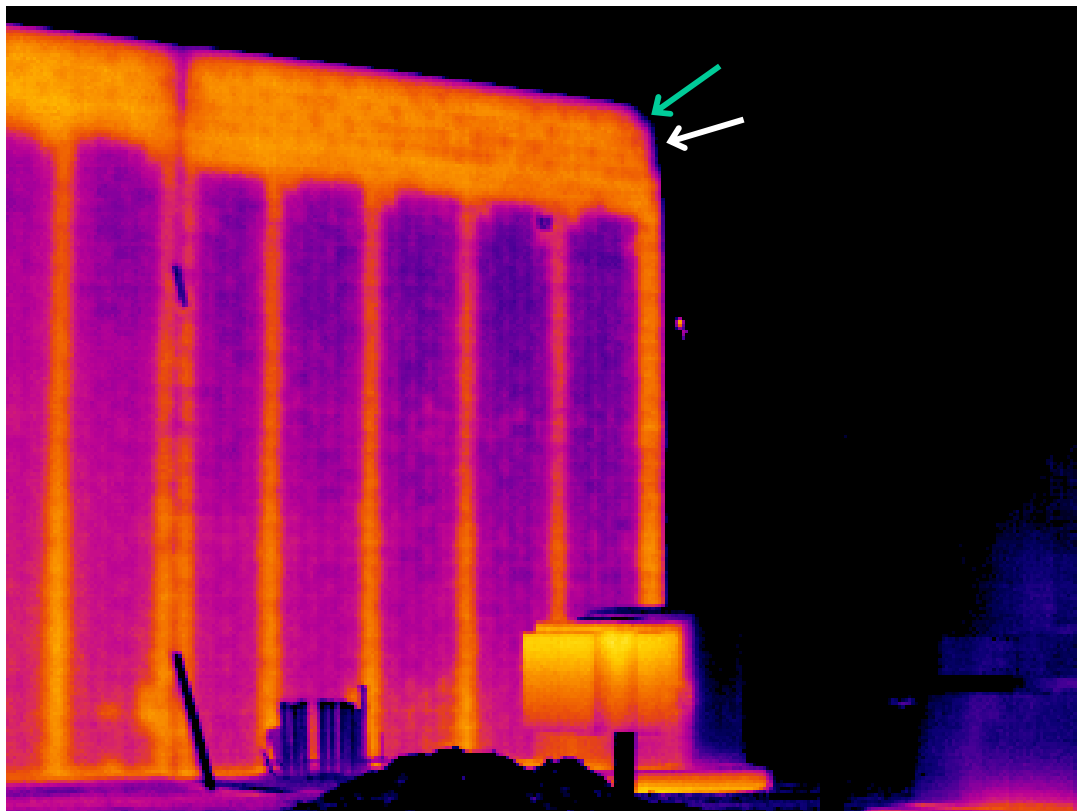
THERMOGRAPHIC REPORT # 9

Sample Retail Store
Your Town, USA
October 4, 2009

 **Block Wall Scan IR™**
Authorized Service Contractor

Down Column Line C.29
From Column 9.22 to 10
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule

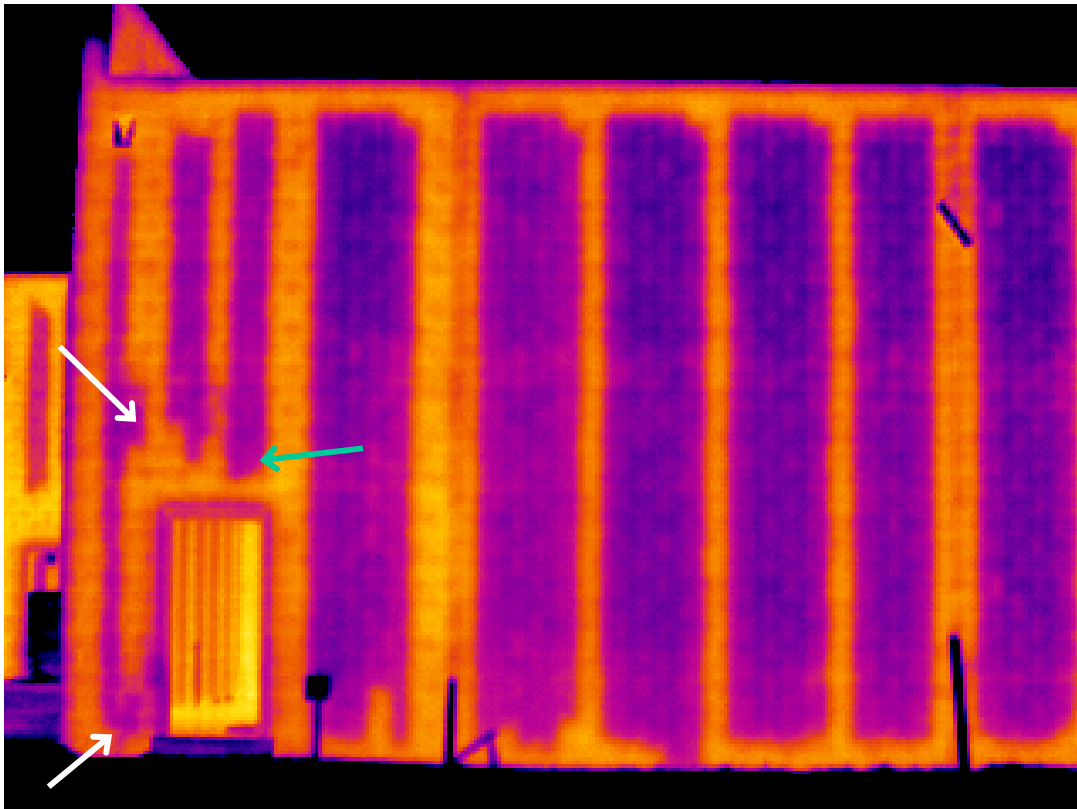


THERMOGRAPHIC REPORT # 10

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line 10
From Column C.29 to D.23
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule

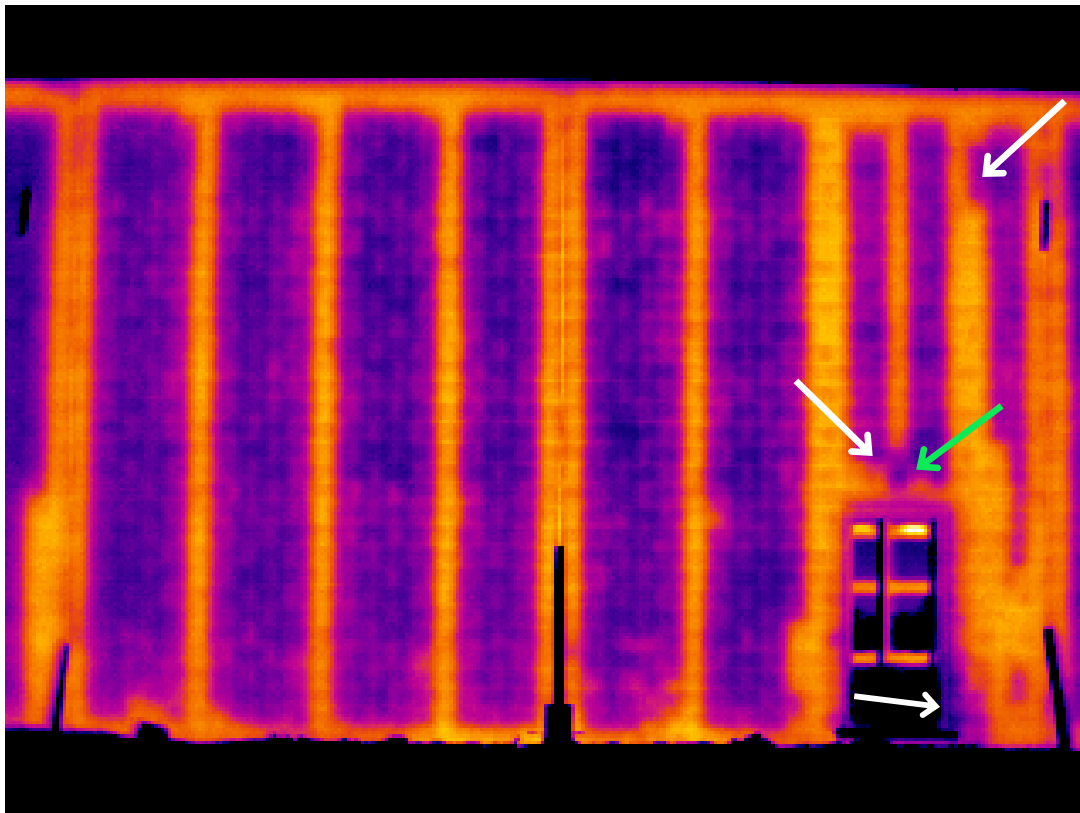


THERMOGRAPHIC REPORT # 11

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line 10
From Column H to J.05
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule



THERMOGRAPHIC REPORT # 12

Sample Retail Store
Your Town, USA
October 4, 2009

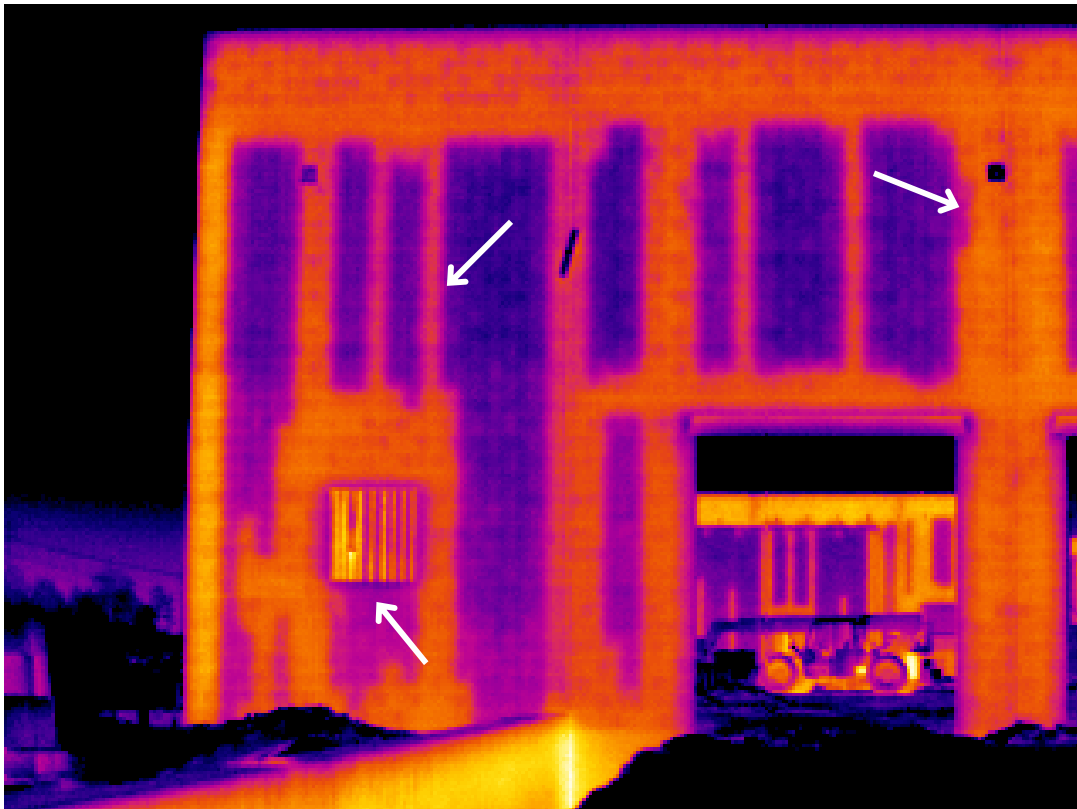


Authorized Service Contractor

Down Column Line K
From Column 10 to 9.30
Description Grouted cells as indicated.

Solid areas are light-colored.

Grouted cells 48" O.C.
Structural Grouting Schedule

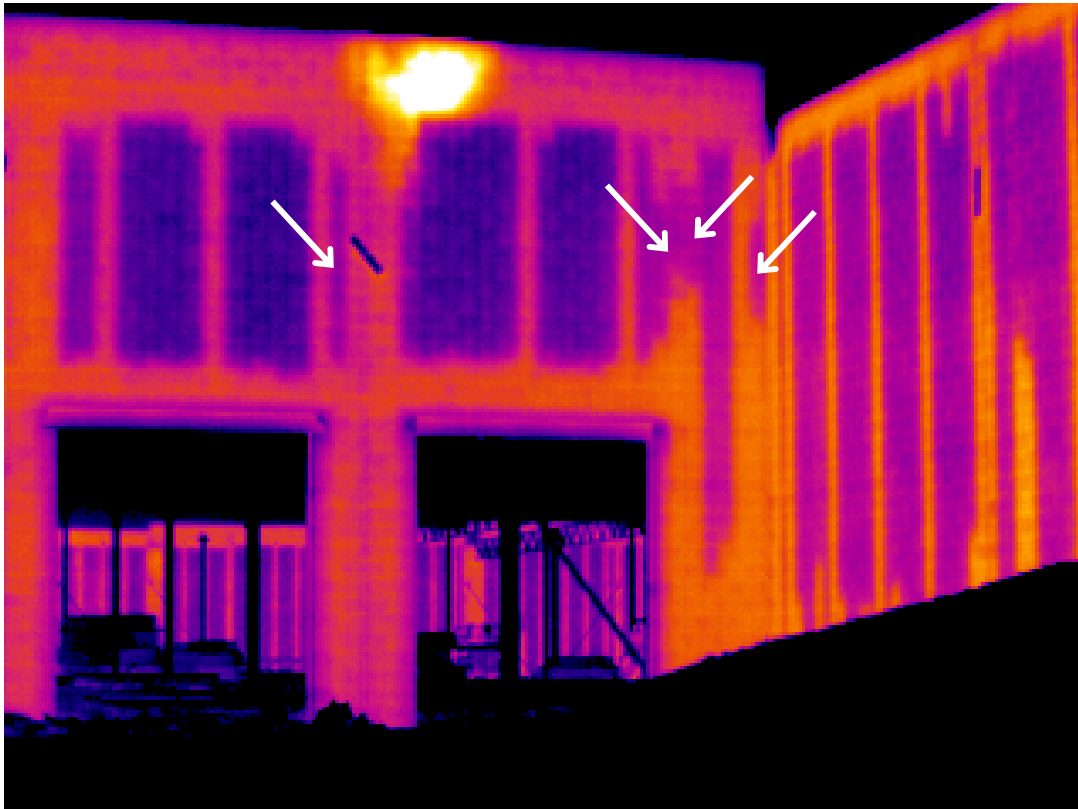


THERMOGRAPHIC REPORT # 13

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line K
From Column 9.30 to 9
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule



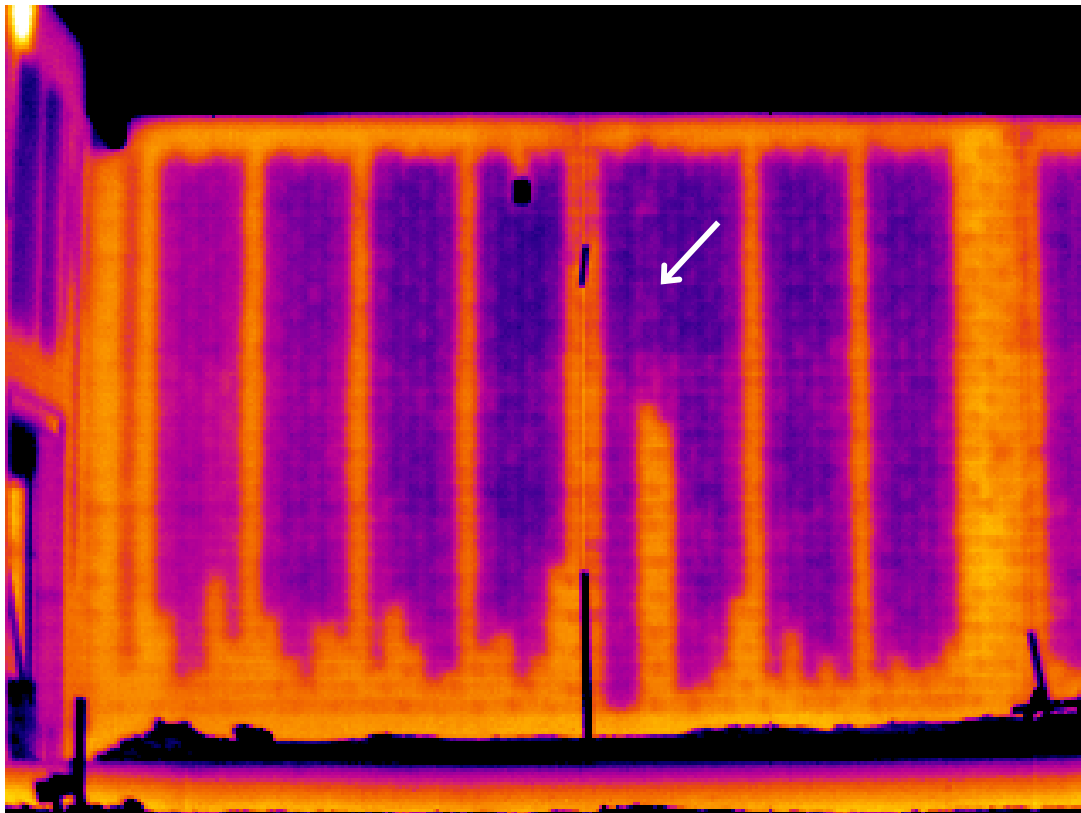
THERMOGRAPHIC REPORT # 14

Sample Retail Store
Your Town, USA
October 4, 2009

 **Block Wall Scan IR™**
Authorized Service Contractor

Down Column Line 9
From Column K to L
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule



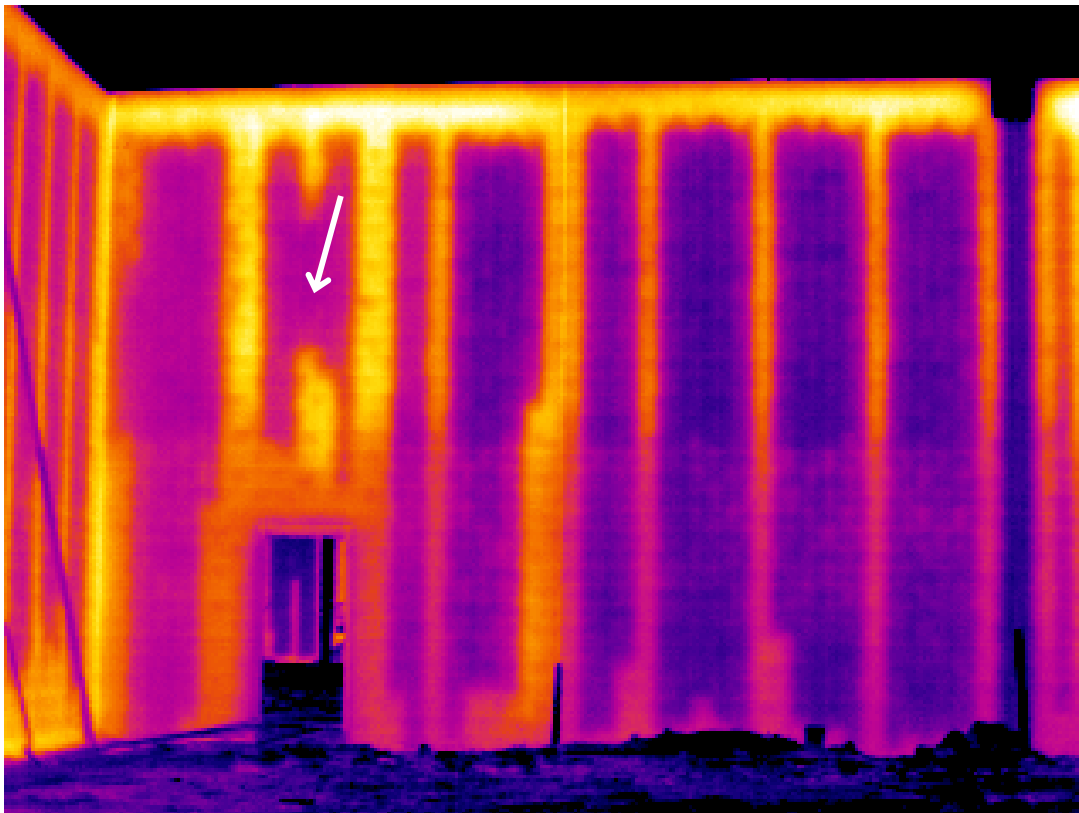
THERMOGRAPHIC REPORT # 15

Sample Retail Store
Your Town, USA
October 4, 2009

 **Block Wall Scan IR™**
Authorized Service Contractor

Down Column Line L
From Column 9 to 8
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule

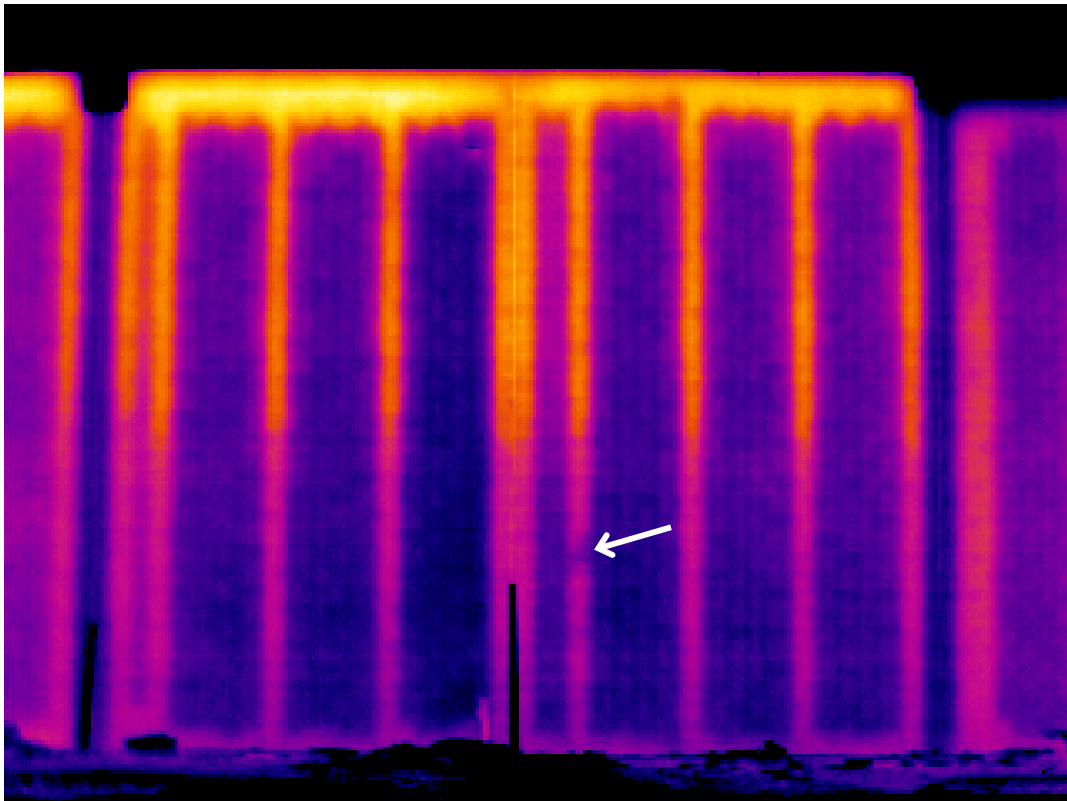


THERMOGRAPHIC REPORT # 16

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line L
From Column 8 to 7
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule



THERMOGRAPHIC REPORT # 17

Sample Retail Store
Your Town, USA
October 4, 2009



Authorized Service Contractor

Down Column Line L

From Column 7 to 6

Description Bond Beams not poured, on Wall L, from 7 to 4.

Solid areas are light-colored.

Grouted cells 48" O.C.
Structural Grouting Schedule

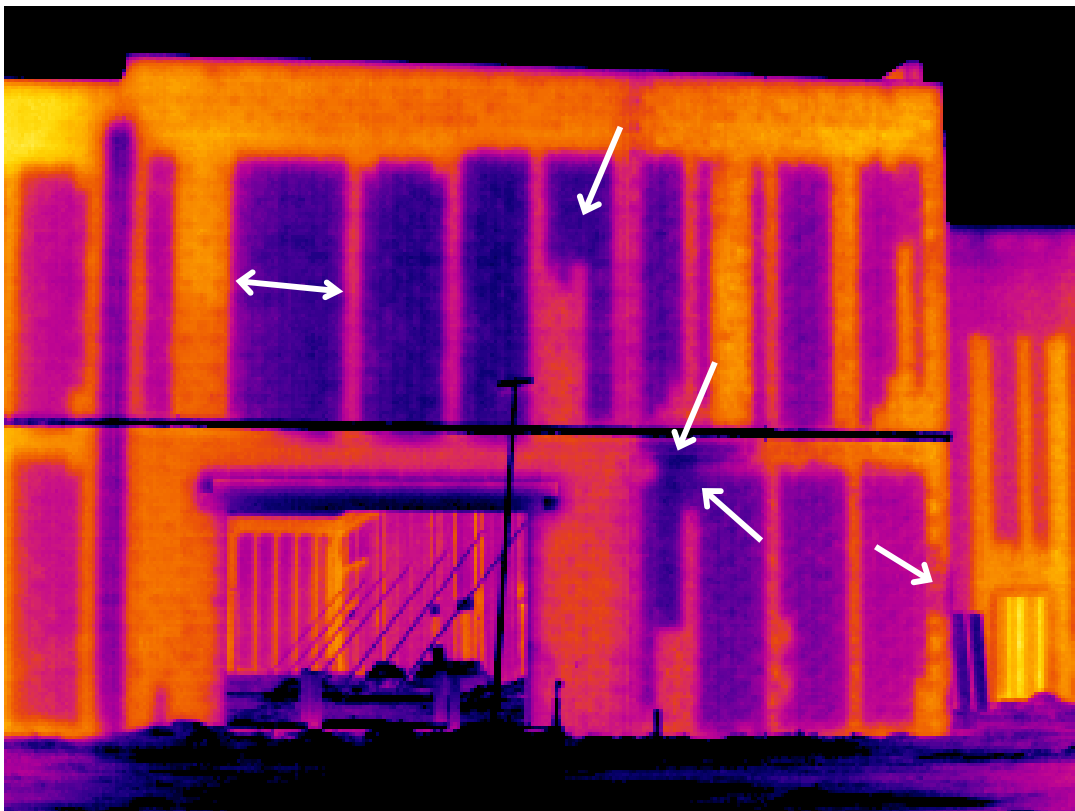


THERMOGRAPHIC REPORT # 18

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line L
From Column 3 to 2
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule



THERMOGRAPHIC REPORT # 19

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line J.30

From Column 2 to 1

Description Grouted cells as indicated.

Solid areas are light-colored.

**Grouted cells 48" O.C.
Structural Grouting Schedule**



THERMOGRAPHIC REPORT # 20

Sample Retail Store
Your Town, USA
October 4, 2009

Down Column Line 2
From Column H to J
Description Grouted cells as indicated.

Solid areas are light-colored.
Grouted cells 48" O.C.
Structural Grouting Schedule

