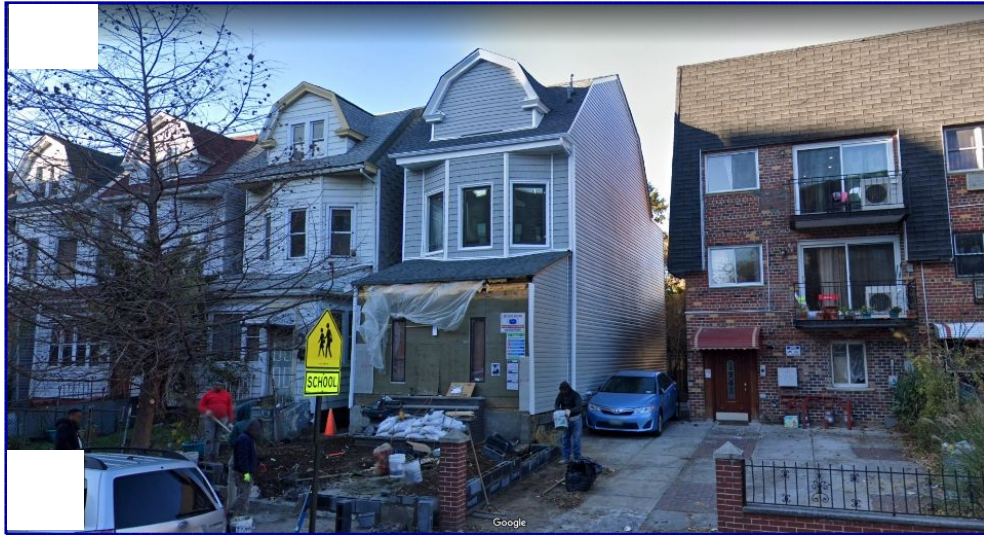


JP Diagnostics *Leak Detection Report*



Inspection prepared for:

Date of Inspection: 2/21/2022 Time: 0900 Size: Siding Single Family Residential

Weather: Clear - Warm/60dF

Full Building Infrared Audit (FB.IR.AUD)

Inspector: Jarrod Parslow

Analysis Completed By: Nia P. / Jarrod P. / Greg W.
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JP DIAGNOSTICS

Inspection Disclaimer

This report is the exclusive property of JP Diagnostics and the client whose name appears herewith, and its use by any unauthorized persons is strictly prohibited.

The observations and opinions expressed within this report are those of JP Diagnostics and supersede any alleged verbal comments made on-site during time of original water leak detection/inspection. We inspect all of the structural systems, components and conditions related and only related to the current water leak situation within the property.

An infrared water leak detection analysis is intended to assist in providing a proper and exact source & origin for the cause of the current water leak damage found within the property inspected. The report is not intended to be utilized as a tool to discredit any previous contractor(s) work during the original build of the structure and all of its internal components. Further, this infrared water leak detection analysis will not reveal every condition that exists or ever could exist within the property, but only those material defects that were observed during time of inspection.

In accordance with the original infrared water leak detection analysis, the overall investigation and service recommendations that we make in this leak detection report should be completed within the allotted warranty period described in the associated warranty documentation, by qualified, licensed specialists who may well identify additional defects or recommend some upgrades in addition to our original recommendations for repair to mitigate/eliminate the current water leak situations.

By relying on this inspection report, you have agreed to be bound by the terms, conditions and limitations as set forth in the original water leak detection agreement, contained within the invoice and warranty documentation, which was presented to you during time of original on-site infrared analysis of the current water leak situation. If you do not have a copy of these documents please contact JP Diagnostics and a copy will be provided to you electronically via email. If you do not agree to be bound by the original water leak detection agreement in its entirety, you must contact JP Diagnostics immediately upon receipt of this completed report. In addition, all electronic and paper copies of the infrared water leak detection analysis report must be deleted and destroyed, and may not be used in whole or in part for any future warranty requests.

JP Diagnostics' Warranty

JP Diagnostics Water Leak Detection Service guarantees its findings with a standard warranty process as described in the original documentation provided during time of on-site infrared water leak analysis. The warranty is to protect against any and all errors in JP Diagnostics' recommendations for repairs of any structural components which are believed to be defective and allowing the current water entry causing damage within your property.

Any and all warranties provided within the original warranty documentation cannot be changed, modified or upgraded in any way unless otherwise indicated by representatives of JP Diagnostics. Further, it is strongly recommended that all repairs outlined within this report be completed in a timely manner so as to allow for a period of time to pass where structural repairs can be water tested organically during rain storms and to insure there are no further water leaks in the original area identified as the problematic source and origin of water entry into the structure.

If structural area(s) outlined in this report are repaired properly and water leak returns outside of the original warranty termination date, and customer requests an "infrared rescan" of the area, it will be treated as a new leak detection and warranty from original infrared water leak detection analysis will be voided.

For further warranty information, please see associated JP Diagnostics Warranty Terms and Conditions documentation provided to you, the client, issued to you during original infrared water leak detection inspection.

Understanding Your Report

Your report includes many infrared and regular photographs as well as possible video taken on site during time of infrared water leak detection inspection. All pictures contained within are of ONLY problem areas where water intrusion has been located via infrared imaging analysis as well as visual inspection of affected area. However, pictures issued within this report does not necessarily mean that the water leak situation was limited to the area(s) indicated only, but may be a representation of a condition that is in multiple internal areas which cannot be identified unless area is excavated in its entirety.

JP Diagnostics' Process

We are a non-invasive infrared water leak detection analysis company and do not excavate structural components of your property "in search of" a water leak source. Through our proprietary analytical platform designed by representatives of JP Diagnostics, we are able to determine source & origin by compiling all data recorded on site such as but not limited to; (1) Infrared imaging of affected area; (2) Staining patterns within affected area; (3) Overall Structural Layout of affected area; (4) Symptoms of current water leak issue described by customer.

The final determinations based on the compilation of all data on site during time of original inspection has resulted in the findings contained within this report. All findings and repair recommendations are carefully reviewed by our team and are not taken lightly. Our purpose of inspection is to mitigate overall cost to the customer by "pin pointing" exact water leak entry points within the building's structure and providing the absolute minimum level of repairs necessary to stem the flow of water and stop the current water leak.

The infrared water leak detection process is completed in two separate but equal, sections. The first section is the gathering of all data on site which, depending on the leak scenario, may take anywhere from (30) minutes to (2) hours. The second section is processing all infrared images taken on site by analyzing specific temperature gradients and infrared imaging graphical signature contours in order to trace back the path of water taken through the structure from its damage point seen by the customer to its exact structural entry point. The second section of the process takes approximately (1) to (3) business days depending on current call volume and scope of water leak situation inspected for the customer.

Report Nomenclature and Graphical Representation

All images contained within this report, infrared or otherwise, will have a very specific graphical representation of water concentration points and flow patterns.

Yellow and **Black** arrows represent path of water flow through the surrounding structure. **Yellow** and **Black** circles represent water concentration points with a temperature differential of at least 5dF indicating definite water entry into the overall area. The difference in color between **yellow** and **black** within our final images is only for contrast purposes within the images so as to provide an easy to read graphical representation of our overall findings.

Red arrows and **Red** squares/rectangles indicate specific repair points necessary to stop water entry from continuing into the building's structure causing water damage within as observed by the customer.

If draft flow issues were requested for analysis within the structure, they will be represented by **purple** arrows.

Infrared Water Leak Detection Summary

The summary below consists of potentially significant findings. These findings can be a safety hazard, a deficiency requiring a major expense to correct or items we would like to draw extra attention to. Please review all pages of the report as the summary alone does not explain all of the issues. All repairs should be done by a licensed tradesman or qualified professional. We recommend obtaining a copy of all receipts, warranties and permits for the work done. Please contact JP Diagnostics should you need one of our network contractors for repairs.

Water Leak Source and Origin Findings / Recommended Repairs

1. **Basement Wall Leak Source and Origin: Utility Connection Points.** Heavy wind-driven rain water is entering through the air handler support bracket anchor points as well as the electrical utility connection points to the rear facade, cascading down and depositing into the wall areas below causing minor damage to the surrounding drywall.

Repairs / Scope of Work

- a. Seal around air handler bracket anchor points through the siding.
- b. Seal around electrical utility connection points.

2. **Basement Wall Draft Entry Point#1: Temperature Differential: -9dF**

Draft Severity: MODERATE

Repairs / Scope of Work

- a. Excavate drywall area.
- b. Install proper R rated insulation within affected area.

3. **Basement Wall Draft Entry Point#2: Temperature Differential: -18dF**

Draft Severity: HIGH

Repairs / Scope of Work

- a. Excavate drywall area.
- b. Install proper R rated insulation within affected area.

4. **Kitchen Floor/Wall Draft Entry Point: Temperature Differential: -21dF**

Draft Severity: EXTREME

Repairs / Scope of Work

- a. Remove cabinets from wall.
 - b. Excavate drywall.
 - c. Install proper R rated insulation within affected area.
-

5. Living Room Window/Wall Draft Entry Point: **Temperature Differential: -19dF**
Draft Severity: HIGH

Repairs / Scope of Work

- a. Excavate drywall area.
 - b. Install proper R rated insulation within affected area.
-

6. Living Room Floor/Wall Draft Entry Point: **Temperature Differential: -21dF**
Draft Severity: EXTREME

Repairs / Scope of Work

- a. Excavate drywall area.
 - b. Install proper R rated insulation within affected area.
-

7. Living Room Closet Draft Entry Points: **Temperature Differential: -27dF**
Draft Severity: EXTREME

Repairs / Scope of Work

- a. Excavate drywall area.
 - b. Install proper R rated insulation within affected area.
-

8. Second Floor Daughters' Room Closet Floor Leak Source and Origin: **Above Terrace Facade/Window Frame.** Heavy wind-driven rain water is entering through the siding connection point to the window frame, cascading down and depositing within the third floor internal wall area below the window. Once inside the internal wall area, water is continuing down and depositing into the closet floor area below causing minor damage to the surrounding area.

Repairs / Scope of Work

- a. Remove siding from around the window, as outlined.
- b. Waterproof and flash area accordingly.
- c. Reinstall siding system.

NOTE: A secondary entry point around the door baseplate may be present, however, we cannot know for sure until after the initial leak point around the window is rectified. Once complete, contact JP Diagnostics for followup scans of the door baseplate area to confirm the system is without water entry.

9. Second Floor Daughter's Room Window/Wall Leak Source and Origin: Window Sill/Facade Connection Point. Heavy wind-driven rain water is entering through the window sill connection point to the rear facade, backflowing into the substrate and cascading down into the internal wall area below not yet causing damage to the drywall system.

Repairs / Scope of Work

- a. Attempt to caulk window sill area from outside, if possible.
- b. If caulking application is not viable, siding must be removed from around the window sill and the area waterproofed/flashing as necessary.

10. Floor Board Separation Source and Origin: Improper Installation of Hardwood System. All areas of floor board separation have been analyzed and confirmed to be without moisture entry within the area and humidity levels were at or below 60%. Based on all data available as well as the sporadic nature of the floor board separation points through the residence we believe the hardwood floor defect is due to improper installation of the system. We recommend followup scans within (7) days of a rain event to confirm these findings.

Repairs / Scope of Work

- a. Conduct followup scans to confirm findings.
- b. If confirmed, replace hardwood floor board separation points as necessary.

11. Attic Ceiling Leak#2 Source and Origin: Roof Shingle System. During heavy rain events, water is depositing onto the roofing system from the drain leader and in close proximity to the roof's edge causing water to overflow from the roof shingles and backflow into the siding system. Water entry is minor but present and has not yet migrated past the underlying waterproofing to the internal area of the residence. However, if not fixed, water will continue to enter and cause damage to the surrounding structure.

Repairs / Scope of Work

- a. Reroute drain leader away from roof shingle edge either down the side of the building or directed towards the center of the roof by installing and 45degree leader joint.

MOLD PROBABILITY RATING (MPR): Given the length of time the current water leaks have occurred within the areas scanned as well as the medium level of moisture within the structure observed via infrared imaging and analysis, based on JP Diagnostics' Models the **Mold Probability Ratings (MPR)** have been set as follows:

1. Basement Wall Area MPR: **35%**
2. Second Floor Bedroom Closet Floor MPR: **10%**
3. Second Floor Bedroom Lower Wall MPR: **10%**

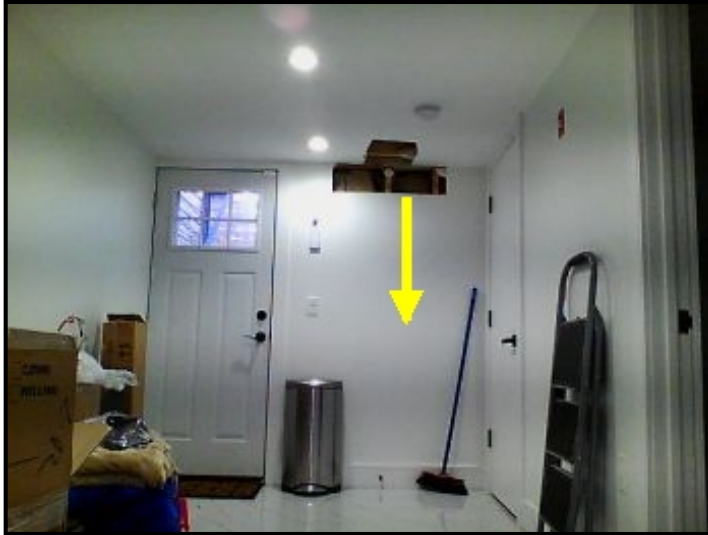
Any rating at or higher than 30% we suggest hiring a mold remediation team to test for airborne and internal wall spores within the area to detect if mold is, in fact, growing within the structure. If below 30% mold testing is not warranted except as a precautionary measure. A 5% rating is the minimum we provide as our scale is from 5% -100%.

DISCLAIMER: JP Diagnostics is, in no way, an expert in mold growth, remediation or definitive determination of mold presence. All mentioning of mold and its probability of its presence are based off of infrared analysis through our own analytical platform examining temperature differentials, level of water concentration and details provided by the customer on site as to how long the problem has occurred. For more detailed information concerning mold growth, please contact a mold remediation specialist who can further assist in helping you identify different breeds of mold growth, identifying its definitive possibility of growth within your structure as well as overall remediation, if necessary.

NOTE: Any infrared and regular pictures without directional flow patterns is an indication of either wide spread water leak entry through the entire structure scanned or no moisture presence at all and is not a representation of a mistake in any way.

Basement Wall Leak

1. Water Leak Source / Origin: Rear Facade / Utility Connection Points



Water entry into wall area.



Infrared imaging of water entry into wall area.

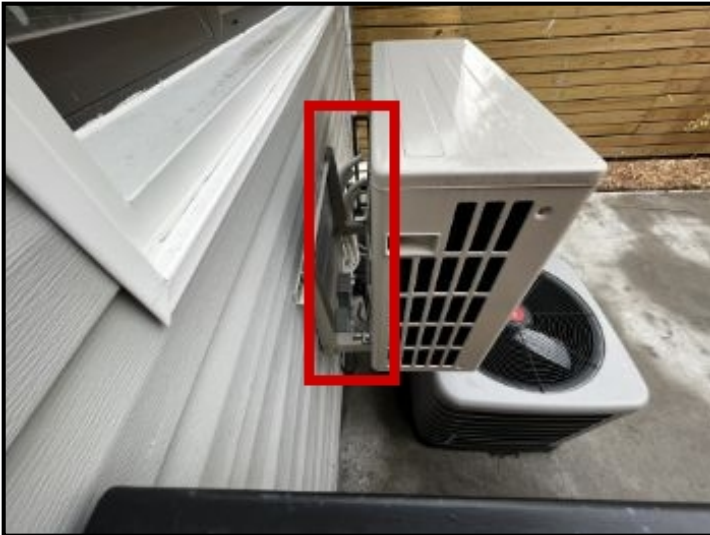


Water entering through siding around utility connection points and cascading down into the internal wall areas below.



Infrared imaging of water entering through siding around utility connection points and cascading down into the internal wall areas below.

2. Repairs / Scope of Work



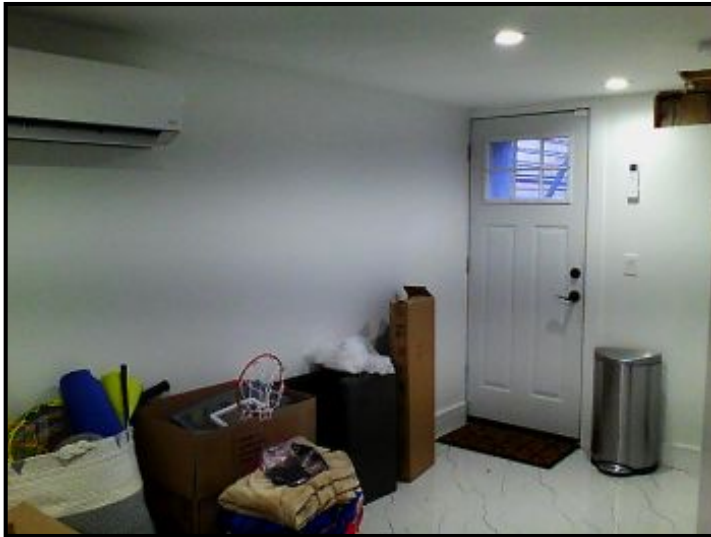
Repair Point: Seal around air handler bracket anchor points and around electrical utility connection points to facade.



Repair Point: Seal around air handler bracket anchor points and around electrical utility connection points to facade.

Basement Wall Area#1

1. Draft Entry Point

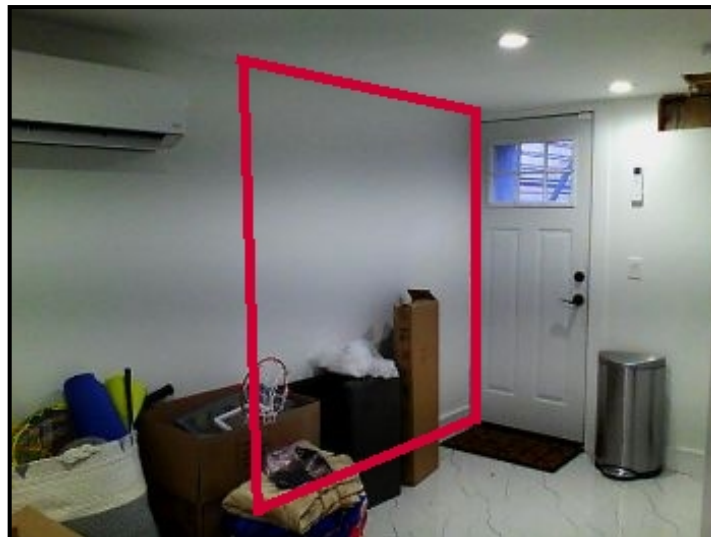


Draft entry point.



Infrared imaging of draft entry point.

2. Repairs / Scope of Work



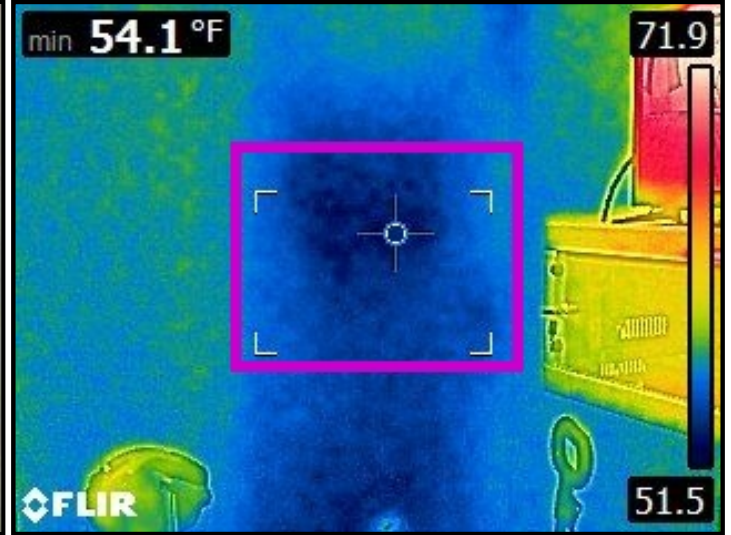
Repair Point: Excavate drywall. Insulate area accordingly.

Basement Wall Area#2

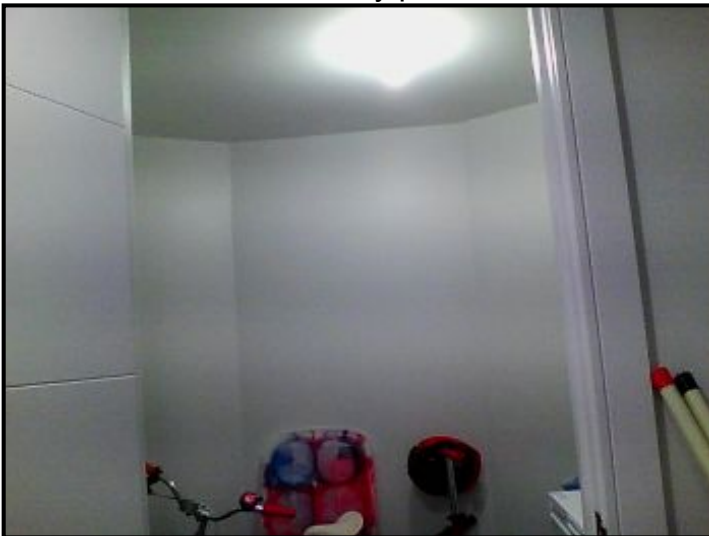
1. Draft Entry Point



Draft entry point.



Infrared imaging of draft entry point.



Draft entry point.



Infrared imaging of draft entry point.

2. Repairs / Scope of Work



Repair Point: Excavate drywall. Insulate area accordingly.

Kitchen Floor/Wall Area

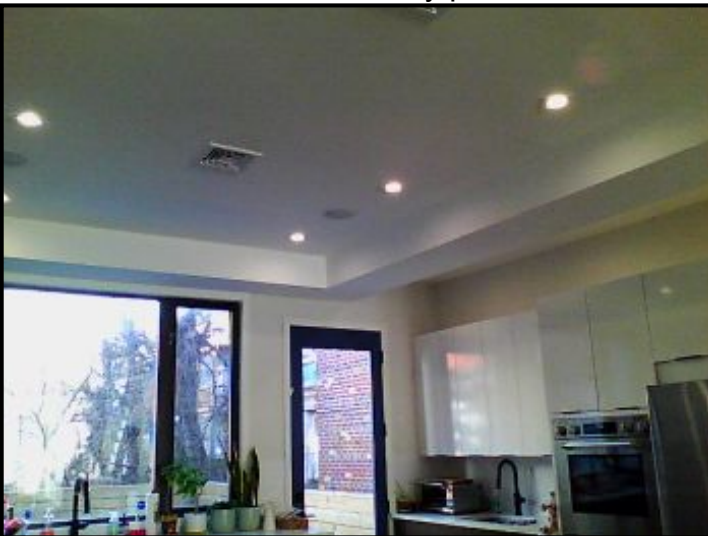
1. Draft Entry Point



Severe draft entry point.



Infrared imaging of severe draft entry point.



Severe draft entry point.



Infrared imaging of severe draft entry point.



Severe draft entry point.



Infrared imaging of severe draft entry point.



Severe draft entry point.

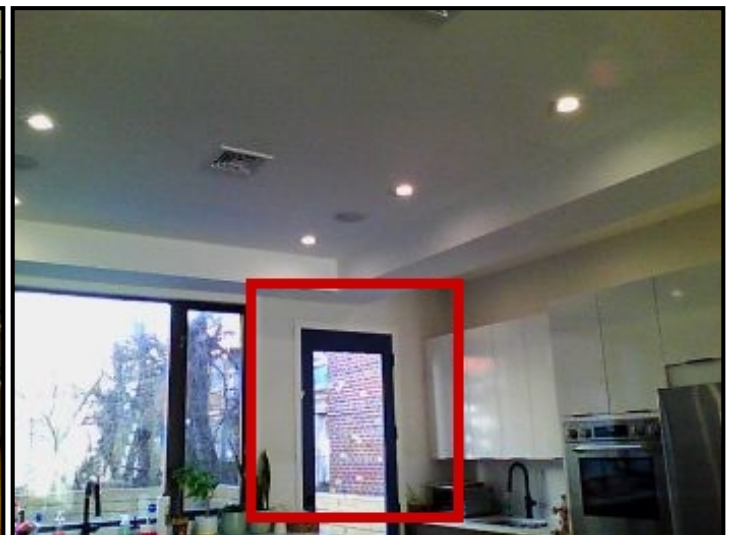


Infrared imaging of severe draft entry point.

2. Repairs / Scope of Work



Repair Point: Remove cabinets from wall area.
Excavate drywall. Install proper insulation.





Repair Point: Remove cabinets from wall area.
Excavate drywall. Install proper insulation.



Repair Point: Remove cabinets from wall area.
Excavate drywall. Install proper insulation.

Living Room Window/Wall Area

1. Draft Entry Point



Draft entry point.



Infrared imaging of draft entry point.

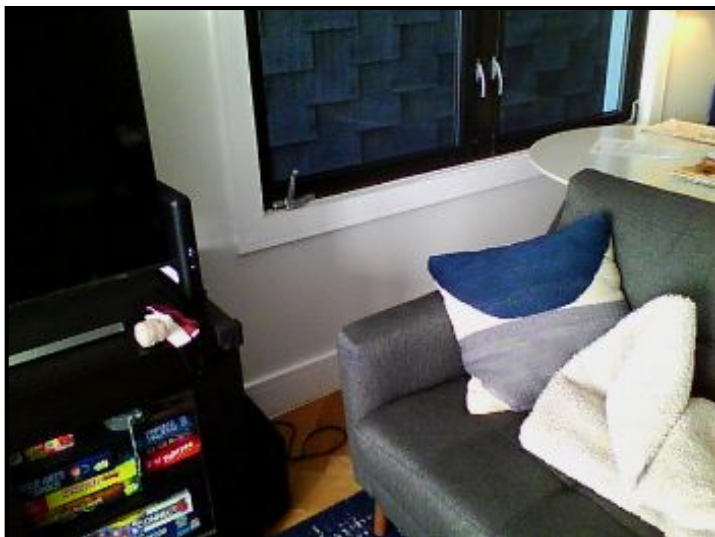
2. Repairs / Scope of Work



Repair Point: Excavate drywall. Install proper insulation.

Living Room Floor/Wall Area

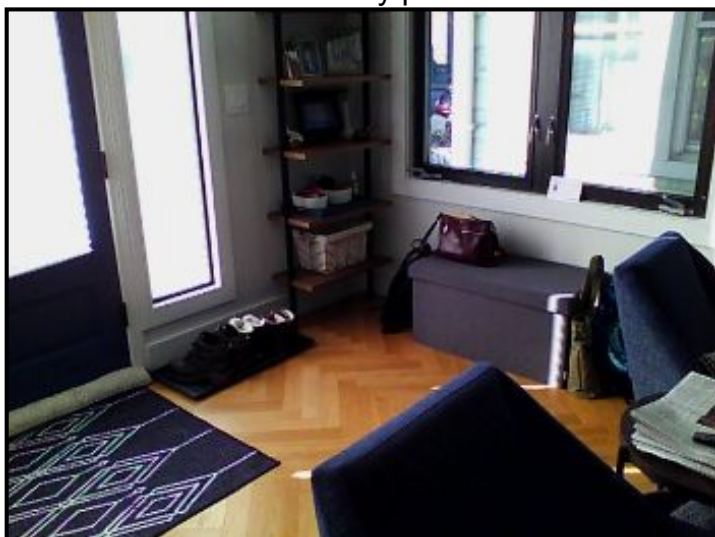
1. Draft Entry Point



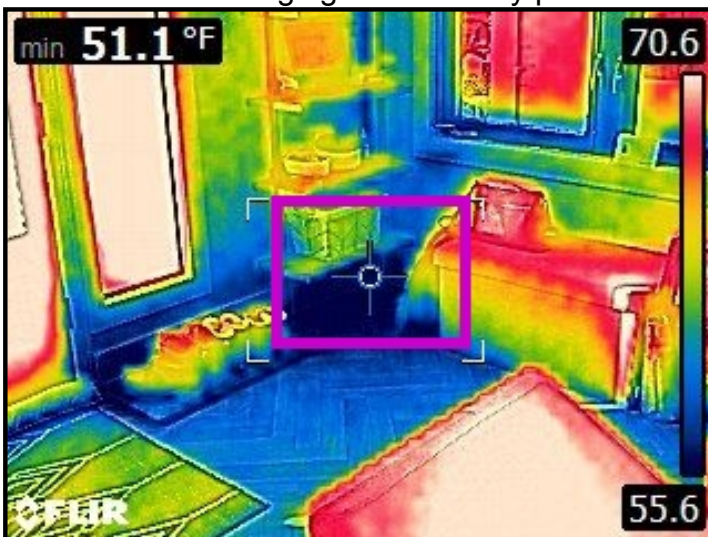
Draft entry point.



Infrared imaging of draft entry point.

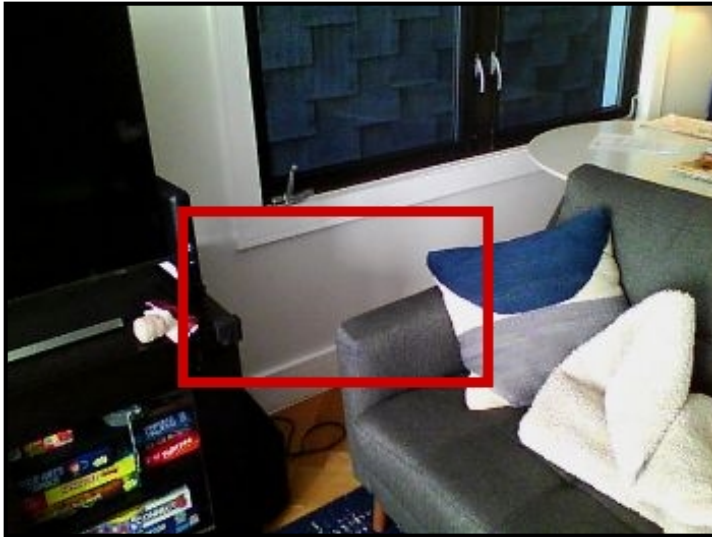


Severe draft entry point.



Infrared imaging of severe draft entry point.

2. Repairs / Scope of Work



Repair Point: Excavate drywall area. Install proper insulation.



Repair Point: Excavate drywall area. Install proper insulation.

Living Room Closet Areas

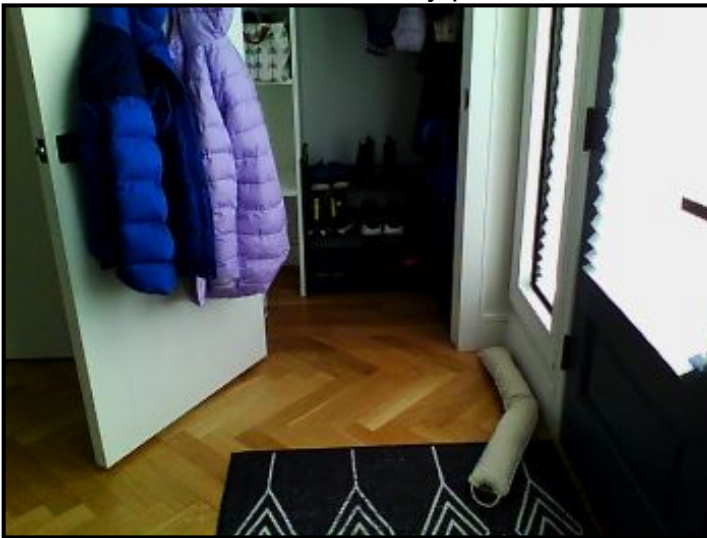
1. Draft Entry Point



Severe draft entry point.



Infrared imaging of severe draft entry point.



Severe draft entry point.

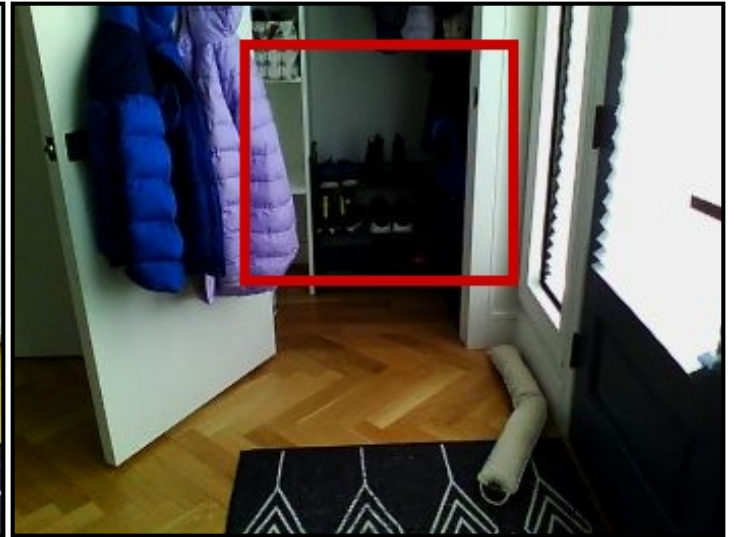


Infrared imaging of severe draft entry point.

2. Repairs / Scope of Work



Repair Point: Excavate drywall area. Install proper insulation.



Repair Point: Excavate drywall area. Install proper insulation.

Second Floor Closet Leak

1. Water Leak Source / Origin: Above Terrace Facade/Window Frame



Water entry point into closet wall area.



Infrared imaging of water entry point into closet wall area.



Water entering into wall area and cascading down into the second floor closet floor area.



Infrared imaging of water entering into wall area and cascading down into the second floor closet floor area.



Water entering through facade area, backflowing into the internal wall and cascading down into the second floor closet floor area.



Infrared imaging of water entering through facade area, backflowing into the internal wall and cascading down into the second floor closet floor area.

2. Repairs / Scope of Work



Repair Point: Remove siding from area. Waterproof area accordingly.

Second Floor Window/Wall Leak

1. Water Leak Source / Origin: Facade/Window Sill



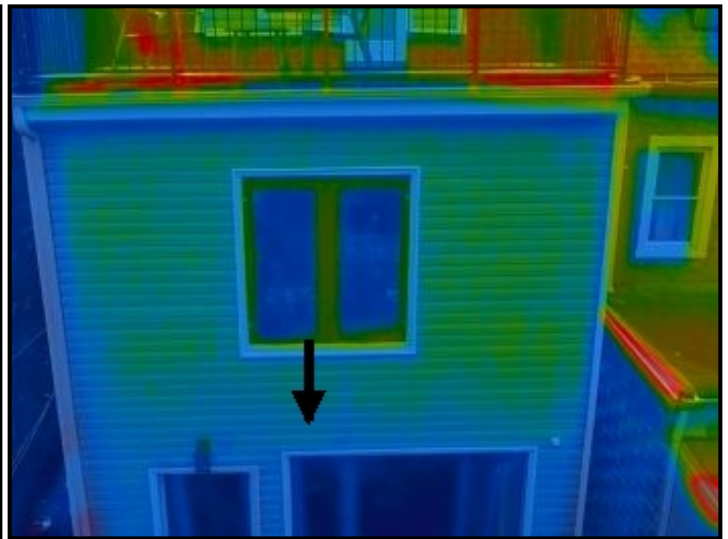
Water entry into lower wall area.



Infrared imaging of water entry into lower wall area.



Water entering through window sill connection point to facade and backflowing into the internal wall area.



Infrared imaging of water entering through window sill connection point to facade and backflowing into the internal wall area.

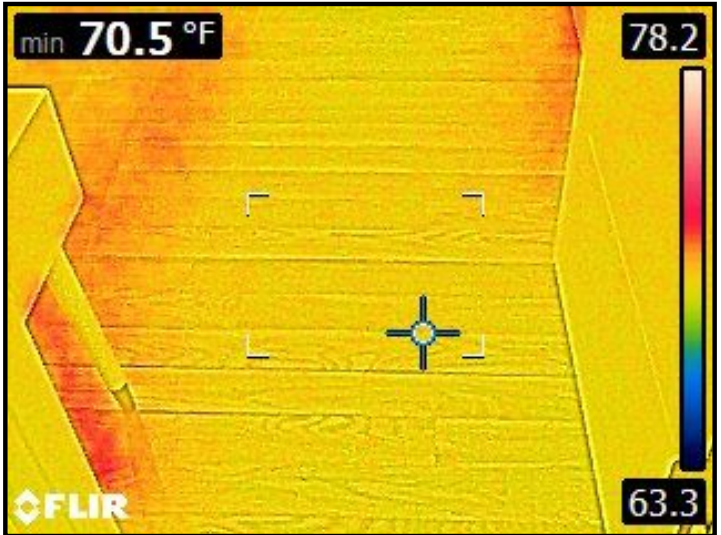
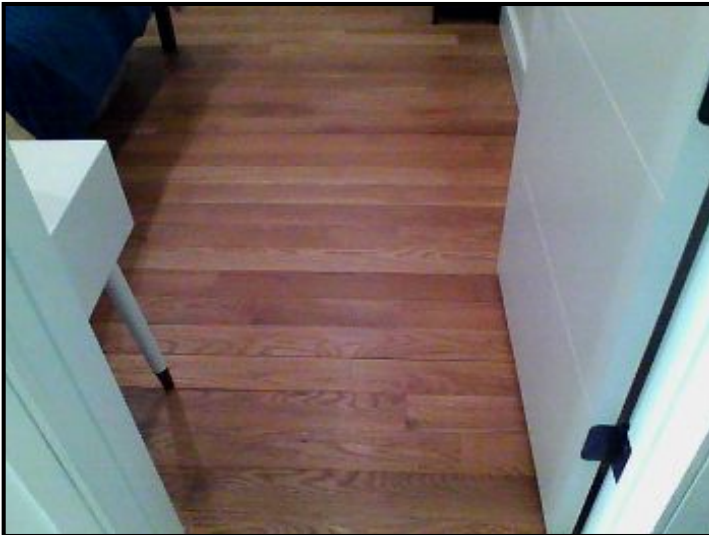
2. Repairs / Scope of Work



Repair Point: Caulk window sill if possible. If not possible, siding around window sill will have to be removed and the area waterproofed.

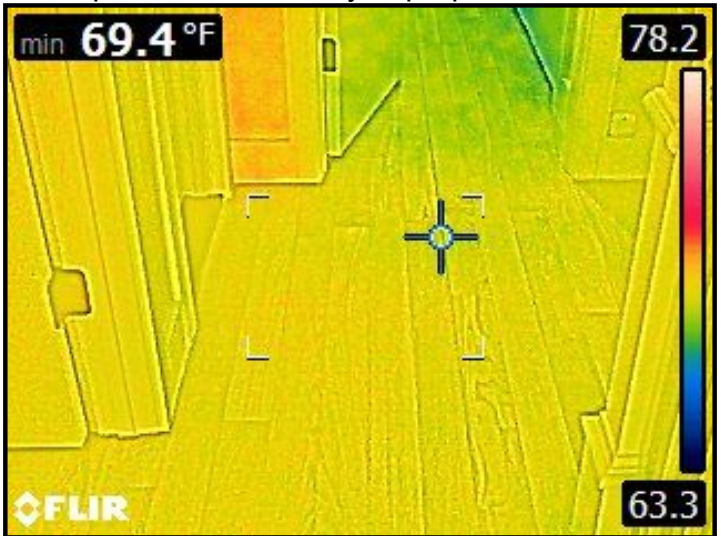
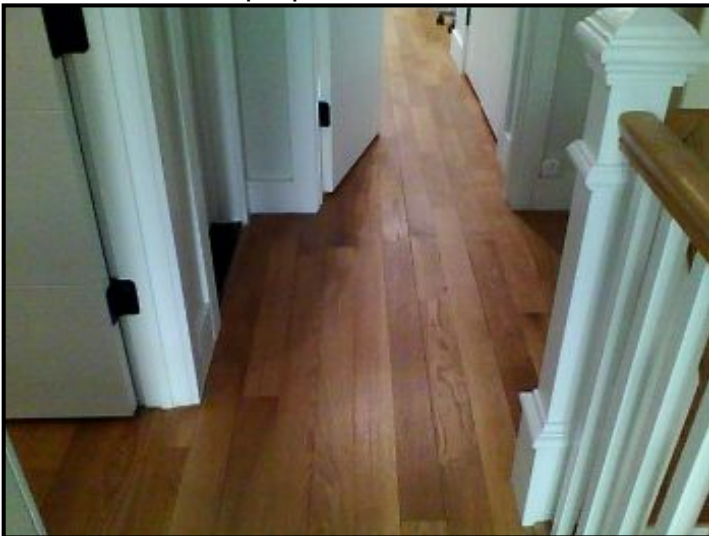
Floor Board Separation/Damage Areas

1. Water Leak Source / Origin: None / Improper Installation - Further Testing Required



Floor board separation point. No indication of water entry within the area. Separation caused by improper installation.

Infrared imaging of floor board separation point. No indication of water entry within the area. Separation caused by improper installation.



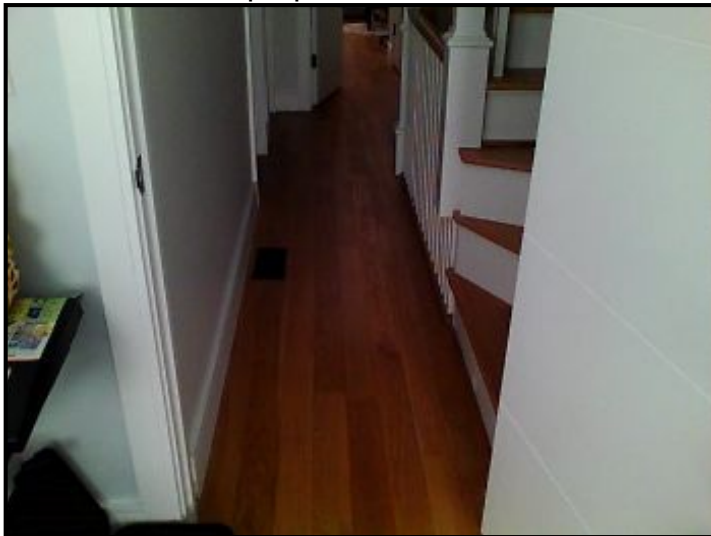
Floor board separation point. No indication of water entry within the area. Separation caused by improper installation.

Infrared imaging of floor board separation point. No indication of water entry within the area. Separation caused by improper installation.



Floor board separation point. No indication of water entry within the area. Separation caused by improper installation.

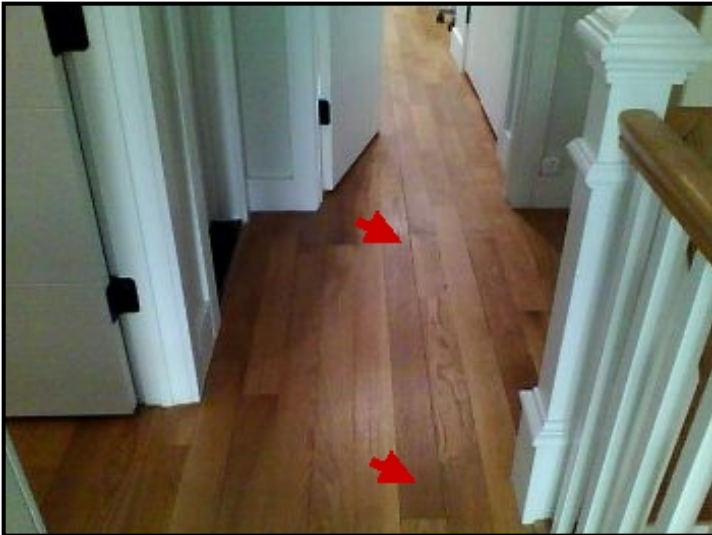
Infrared imaging of floor board separation point. No indication of water entry within the area. Separation caused by improper installation.



Floor board separation point. No indication of water entry within the area. Separation caused by improper installation.

Infrared imaging of floor board separation point. No indication of water entry within the area. Separation caused by improper installation.

2. Repairs / Scope of Work



Repair Point: Conduct followup scans to confirm findings. If confirmed, replace floor boards.



Repair Point: Conduct followup scans to confirm findings. If confirmed, replace floor boards.



Repair Point: Conduct followup scans to confirm findings. If confirmed, replace floor boards.

Side Facade Leak

1. Water Leak Source / Origin: Gutter Leader Deposit Point



Water entry into side facade from above gutter leader deposit point draining into the roof substrate and depositing into the side facade.



Infrared imaging of water entry into side facade from above gutter leader deposit point draining into the roof substrate and depositing into the side facade.

2. Repairs / Scope of Work



Repair Point: Route gutter leader away from roof edge.