JP Diagnostics LLC **Infrared Leak Detection Report**



Inspection prepared for: Date of Inspection: 6/11/2024 Time: 0900 Size: Commercial Weather: Clear - Warm/68df Seven-Leak Source and Origin (7L.SO)

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Inspection Disclaimer

This report is the exclusive property of JP Diagnostics and the client whose name appears herewith. 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(s) within the property unless otherwise expressly indicated in the original quote/contract provided.

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(s) 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. Furthermore, this infrared water leak detection analysis will not reveal every condition that exists or ever could exist within the property which could lead to water leak entry, but only such 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 provided in the associated quote and 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 situation(s).

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. 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.

Understanding Your Report

Your report includes many infrared and regular photographs as well as possible video taken on site during the time of infrared water leak detection inspection. All pictures contained within are ONLY of problem area(s) where water intrusion has been located via infrared imaging analysis as well as visual inspection of the affected area. However, pictures issued within this report do 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 the area(s) in question are excavated in their 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 the source / origin by compiling all data recorded on site, such as but not limited to the following: (a) Infrared imaging of affected area; (b) Staining patterns within affected area; (c) Overall structural layout of affected area and surrounding areas; (d) Symptoms of current water leak issue described by the customer; (e) Historical precedent with similar type water leaks within similar type structures.

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 stop water entry through the envelope of the building.

Report Nomenclature and Graphical Representation within IR Imaging

All images contained within this report, infrared or otherwise, will have a very specific graphical representation of water concentration points and flow patterns indicative of the direction of water flow through the structure starting from point of damage to point of entry through the envelope of the building.

Yellow and **Black** arrows represent the path of water flow through the surrounding structure. Yellow and **Black** circles represent water concentration and dispersion points

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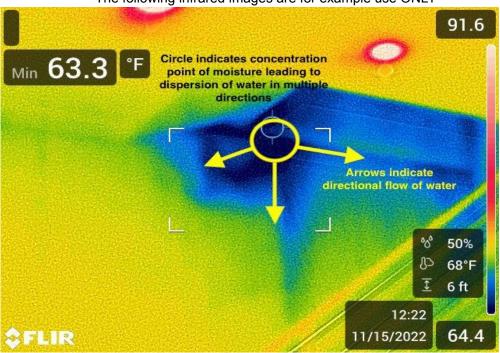
within the structure. The difference in color between Yellow and Black within our final images is only for contrast purposes within the images so as to provide an easy to read graphical representation of our overall findings.

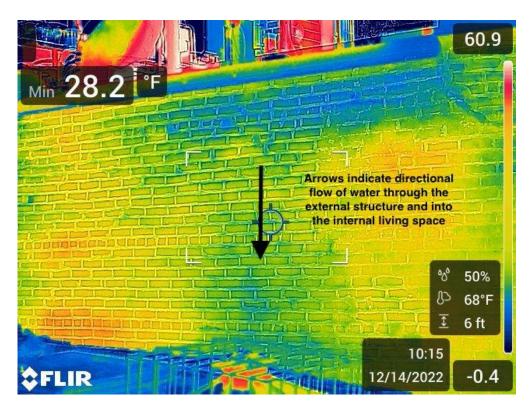
Red arrows and red squares / rectangles indicate specific repair points necessary to stop water entry from continuing into the building's structure causing water damage within, as observed by the customer.

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

Report Nomenclature / IR Directional Water Flow Patterns

The following infrared images are for example use ONLY





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, as per the recommendations within this report. Please contact JP Diagnostics should you need one of our network contractors for repairs.

Water Leak Source and Origin Findings / Recommended Repairs

1. 1st Floor Office Wall#1 Leak:

- Source & Origin: HVAC Duct / Roof Membrane.
- **Description:** Heavy rain water is entering through the HVAC duct entry point into the roof membrane system and cascading down into the wall areas below.
- Repairs / Scope of Work:
 - a. Waterproof around duct entry point into the roof membrane.
 - b. Clear all debris from the surrounding membrane system.
 - c. Waterproof outlined area of membrane with a liquid roof flashing such as Polyglass 1C.

2. 1st Floor Office Wall#2 Leak:

- Source & Origin: Parapet Wall Flashing Cap / Rear Brick Facade.
- Description: Heavy wind-driven rain water is entering through the parapet wall
 flashing cap joints and rear brick facade, back flowing into the substrate and
 cascading down into the internal wall areas below.
- Repairs / Scope of Work:
 - d. Remove parapet wall flashing cap.
 - e. Repoint and seal upper rear brick facade.
 - f. Waterproof top-side of parapet wall.
 - g. Install new flashing cap atop the parapet wall with proper segment overlay of at least 4 inches.

3. Room#11 Wall Leak:

- Source & Origin: Window Sill(s) / Brick Facade.
- Description: Heavy wind-driven rain water is entering through the window sills
 and surrounding brick facade structure, cascading down into the roof membrane
 system and depositing into the internal wall areas below.
- Repairs / Scope of Work:
 - h. Waterproof window sills.
 - i. Waterproof surrounding brick facade area.

NOTE: Because the brick is severely deteriorated, we suggest consulting with your contractor as to the exact repair protocol for this area.

4. Room#12 Wall Leak:

- Source & Origin: Parapet Wall Flashing Cap / Brick Facade.
- Description: Heavy wind-driven rain water is entering through the neighboring property's brick facade, cascading down and entering into the parapet wall flashing cap joints eventually depositing into the primary membrane system.
 Once inside the membrane, water is continuing down into the substrate and finally entering into the wall areas below.
- Repairs / Scope of Work:
 - j. Remove parapet wall flashing cap.
 - k. Excavate brick from neighboring property's facade, as outlined.
 - I. Waterproof and flash area accordingly.
 - m. Install proper drainage channels / weep holes to divert water outward.
 - n. Clear debris from roof membrane system.
 - o. Waterproof surrounding roof membrane system.
 - p. Install new flashing cap atop the parapet wall with proper segment overlay of at least 4 inches.

NOTE: Because the brick is multi-wythe and not veneer, we suggest consulting with your contractor as to the exact repair protocol for this area.

5. Room#15 Wall Leak:

- Source & Origin: Parapet Wall / Brick Facade.
- Description: Heavy wind-driven rain water is entering through the parapet wall
 connection point to the brick facade, cascading down into the primary roof
 membrane system and depositing into the ceiling / wall areas below.
- Repairs / Scope of Work:
 - q. Remove parapet wall flashing cap.
 - r. Waterproof brick facade connection point to the parapet wall.
 - s. Reinstall flashing cap.
 - t. Seal all flashing cap joints.

6. 10th Floor Window Frame Leak:

- Source & Origin: Brick Facade.
- Description: Heavy wind-driven rain water is entering through the upper brick facade, back flowing into the substrate and cascading down into the internal window frame areas below.
- Repairs / Scope of Work:
 - u. Seal outlined area of rear facade brick with an Elastoflex type sealant system.

7. 10th Floor Dining Room Ceiling Leak:

- Source & Origin: Bulkhead Wall / Door Baseplate.
- Description: Heavy wind-driven rain water is entering through the bulkhead wall
 panel system, especially around the elevator room access door baseplate
 assembly as well as the nearby window frame, back flowing into the substrate
 and cascading down into the internal ceiling areas below.
- Repairs / Scope of Work:
 - v. Remove panels from the bulkhead wall focusing on the areas around the elevator room access door frame and the nearby window frame, as outlined.
 - w. Waterproof and flash areas accordingly.
 - x. Install new panels.

MOLD PROBABILITY RATING (MPR): Given the length of time the current water leak(s) 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. 1st Floor Office Wall#1 Area MPR: 15%

2. 1st Floor Office Wall#2 Area MPR: 20%

Room#11 Wall Area MPR: 10%
 Room#12 Wall Area MPR: 5%

Room#12 Wall Area MPR: 5%
 Room#15 Wall Area MPR: 10%

6. 10th FI Wall Area MPR: 5%

7. 10th FI Dining Room Ceiling Area MPR: 50%

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 mentions of mold and its probability of its presence are based on 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 the 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.

READ BEFORE EXAMINING BELOW INFRARED IMAGES

The infrared and regular pictures laid out below are a small graphical representation of the data taken on site and the data analyzed to determine the exact source and origin of each water leak. The areas and circles applied to the regular images coincide with the low temperature / blue areas within each infrared image. Any low temperature / blue areas outside of the areas marked with circles and arrows are irrelevant to the issue(s) analyzed. The flow patterns have been purposefully left out of each infrared image to allow for a much easier examination of the temperature gradients within the infrared image(s). Furthermore, the infrared image(s) represented herein as well as the excess infrared data in the data file not contained within this report are not the only data points used to locate the source of each leak. We take into account the location of the leak relative to the rest of the building structure, symptoms of the issue, staining patterns and historical issues similar to the issues within this building. The small amount of infrared data for each leak area is, by no means, the totality of data used to determine the source of each issue but a small succinct representation to provide enough information to show how and why we arrived at the conclusion we have as well as keeping the report length as low as possible for ease of reading and understanding.

1st Floor Office Wall#1 Leak

1. Water Leak Source / Origin: HVAC Duct / Roof Membrane

| Good | Fair | Poor | N/A | None |
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71.6 °F 78.6

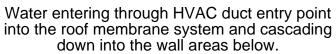
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68.5

Water entry into wall area.

Infrared imaging of water entry into wall area.





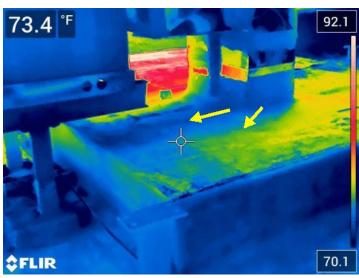


Infrared imaging of water entering through HVAC duct entry point into the roof membrane system and cascading down into the wall areas below.

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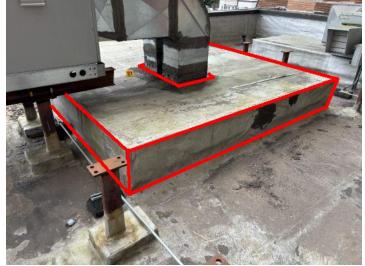


Water entering through HVAC duct entry point into the roof membrane system and cascading down into the wall areas below.



Infrared imaging of water entering through HVAC duct entry point into the roof membrane system and cascading down into the wall areas below.

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Repair Point: Seal outlined area of roof membrane system with Polyglass 1C liquid roof flashing or similar type material.



Repair Point: Seal outlined area of roof membrane system with Polyglass 1C liquid roof flashing or similar type material.



Repair Point: Seal outlined area of roof membrane system with Polyglass 1C liquid roof flashing or similar type material.

1st Floor Office Wall#2 Leak

1. Water Leak Source / Origin: Parapet Wall / Brick Facade

| Good | Fair | Poor | N/A | None |
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71.2 °F 76.0

Water entry into wall area.

Infrared imaging of water entry into wall area.



Water entering through parapet wall flashing cap joints and outer brick facade, cascading down and depositing into the wall areas below.



Infrared imaging of water entering through parapet wall flashing cap joints and outer brick facade, cascading down and depositing into the wall areas below.



85.5 °F 112

→ 65.7

Water entering through parapet wall flashing cap joints and outer brick facade, cascading down and depositing into the wall areas below.

Infrared imaging of water entering through parapet wall flashing cap joints and outer brick facade, cascading down and depositing into the wall areas below.

| Good | Fair | Poor | N/A | None |
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Repair Point: Remove flashing cap from parapet wall. Waterproof rear brick facade. Waterproof parapet. Install new flashing cap.



Repair Point: Remove flashing cap from parapet wall. Waterproof rear brick facade. Waterproof parapet. Install new flashing cap.

Room#11 Wall Leak

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

| Good | Fair | Poor | N/A | None |
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69.8 °F 75.1

75.1

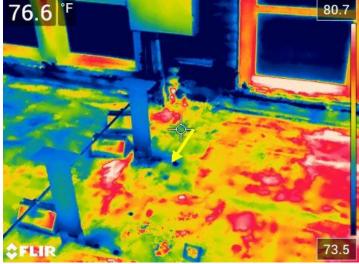
67.8

Water entry into wall area.

Infrared imaging of water entry into wall area.



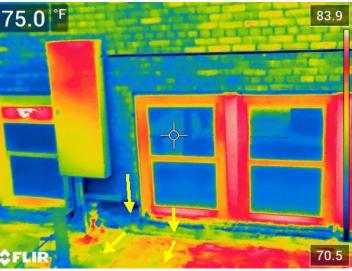
Water entering through the window sill and brick facade areas, cascading down and depositing into the internal wall areas below.



Infrared imaging of water entering through the window sill and brick facade areas, cascading down and depositing into the internal wall areas below.



Water entering through the window sill and brick facade areas, cascading down and depositing into the internal wall areas below.



Infrared imaging of water entering through the window sill and brick facade areas, cascading down and depositing into the internal wall areas below.



Water entering through the window sill and brick facade areas, cascading down and depositing into the internal wall areas below.



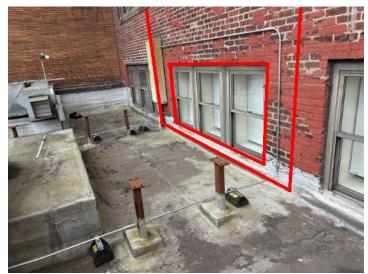
Infrared imaging of water entering through the window sill and brick facade areas, cascading down and depositing into the internal wall areas below.



Water entering through the window sill and brick facade areas, cascading down and depositing into the internal wall areas below.

Infrared imaging of water entering through the window sill and brick facade areas, cascading down and depositing into the internal wall areas below.

| Good | Fair | Poor | N/A | None |
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Repair Point: Waterproof window sills and brick facade area. Waterproof deteriorated section of roof membrane with a liquid roof flashing such as roof membrane with a liquid roof flashing such as Polyglass 1C.



Repair Point: Waterproof window sills and brick facade area. Waterproof deteriorated section of Polyglass 1C.



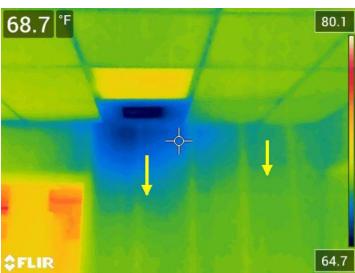
Repair Point: Waterproof window sills and brick facade area. Waterproof deteriorated section of roof membrane with a liquid roof flashing such as Polyglass 1C.

Room#12 Wall Leak

1. Water Leak Source / Origin: Parapet Wall / Brick Facade

| Good | Fair | Poor | N/A | None |
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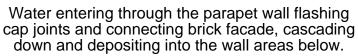


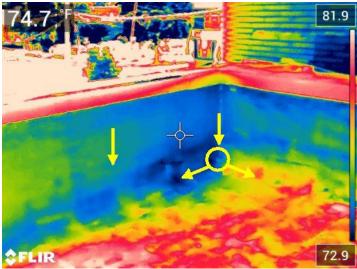


Water entry into wall area.

Infrared imaging of water entry into wall area.



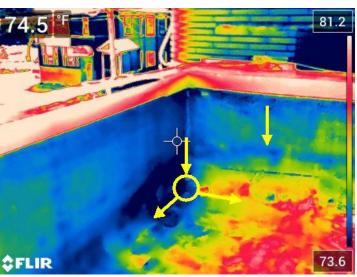




Infrared imaging of water entering through the parapet wall flashing cap joints and connecting brick facade, cascading down and depositing into the wall areas below.



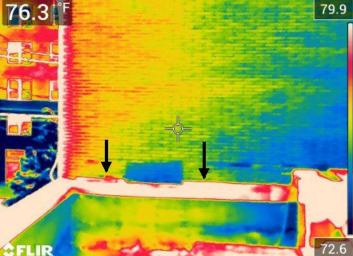
Water entering through the parapet wall flashing cap joints and connecting brick facade, cascading down and depositing into the wall areas below.



Infrared imaging of water entering through the parapet wall flashing cap joints and connecting brick facade, cascading down and depositing into the wall areas below.



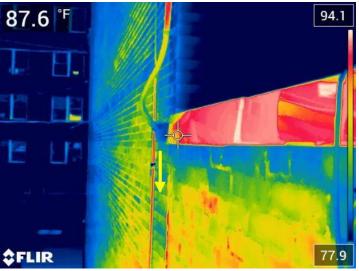
Water entering through the parapet wall flashing cap joints and connecting brick facade, cascading down and depositing into the wall areas below.



Infrared imaging of water entering through the parapet wall flashing cap joints and connecting brick facade, cascading down and depositing into the wall areas below.



Water entering through the parapet wall flashing cap joints and connecting brick facade, cascading down and depositing into the wall areas below.



Infrared imaging of water entering through the parapet wall flashing cap joints and connecting brick facade, cascading down and depositing into the wall areas below.

| Good | Fair | Poor | N/A | None |
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Repair Point: Remove flashing cap from parapet walls. Install through-wall flashing system connecting parapet wall to brick facade substrate. connecting parapet wall to brick facade substrate. Waterproof area accordingly. Install new flashing Waterproof area accordingly. Install new flashing cap.



Repair Point: Remove flashing cap from parapet walls. Install through-wall flashing system cap.

Room#15 Wall Leak

1. Water Leak Source / Origin: Parapet Wall / Brick Facade

| Good | Fair | Poor | N/A | None |
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Water entry into wall / ceiling area.

Infrared imaging of water entry into wall / ceiling area.







Infrared imaging of water entering through brick facade connection point to the parapet wall and cascading down into the internal ceiling / wall areas below.



Water entering through brick facade connection point to the parapet wall and cascading down into the internal ceiling / wall areas below.



Infrared imaging of water entering through brick facade connection point to the parapet wall and cascading down into the internal ceiling / wall areas below.



Water entering through brick facade connection point to the parapet wall and cascading down into the internal ceiling / wall areas below.



Infrared imaging of water entering through brick facade connection point to the parapet wall and cascading down into the internal ceiling / wall areas below.

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| Good | Fair | Poor | N/A | None |
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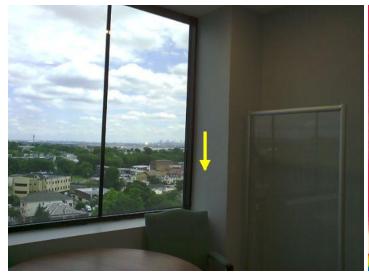
Repair Point: Waterproof brick facade connection point to the parapet wall.

Repair Point: Waterproof brick facade connection point to the parapet wall.

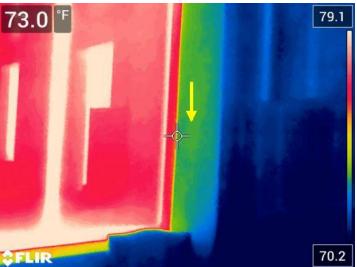
10th Floor Window Frame Leak

1. Water Leak Source / Origin: Brick Facade

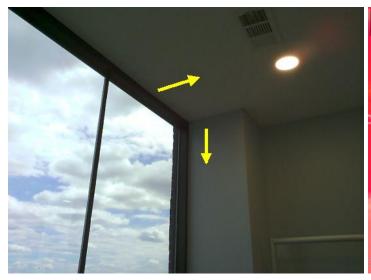
| Good | Fair | Poor | N/A | None |
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Water entry into window frame area.



Infrared imaging of water entry into window frame area.



Water entry into window frame area.



Infrared imaging of water entry into window frame area.



Water entering through the brick facade and cascading down into the window frame areas below.

Infrared imaging of water entering through the brick facade and cascading down into the window frame areas below.



Water entering through the brick facade and cascading down into the window frame areas below.

Infrared imaging of water entering through the brick facade and cascading down into the window frame areas below.

JP Diagnostics LLC

| Good | Fair | Poor | N/A | None |
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Repair Point: Seal upper facade around window frames with an Elastoflex-type sealant system.

Repair Point: Seal upper facade around window frames with an Elastoflex-type sealant system.

10th Floor Dining Room Ceiling Leak

1. Water Leak Source / Origin: Bulkhead Wall

| Good | Fair | Poor | N/A | None |
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68.7 °F 73.6

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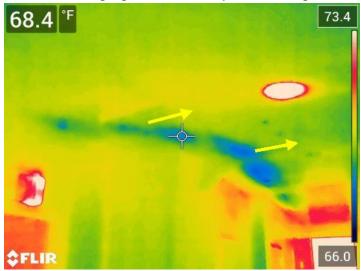
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Water entry into ceiling area.

Infrared imaging of water entry into ceiling area.



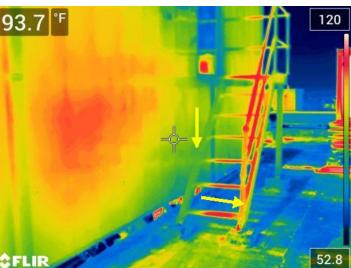
Water entry into ceiling area.



Infrared imaging of water entry into ceiling area.



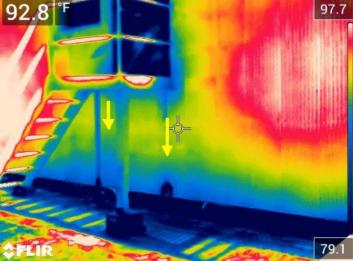
Water entering through the bulkhead wall panels around the door baseplate and window, cascading down and depositing into the ceiling areas below.



Infrared imaging of water entering through the bulkhead wall panels around the door baseplate and window, cascading down and depositing into the ceiling areas below.

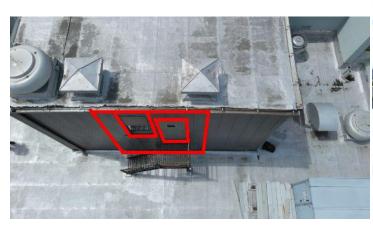


Water entering through the bulkhead wall panels around the door baseplate and window, cascading down and depositing into the ceiling areas below.



Infrared imaging of water entering through the bulkhead wall panels around the door baseplate and window, cascading down and depositing into the ceiling areas below.

| Good | Fair | Poor | N/A | None |
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Repair Point: Remove panels from bulkhead wall around window and door frame. Waterproof and flash areas accordingly.

Repair Point: Remove panels from bulkhead wall around window and door frame. Waterproof and flash areas accordingly.

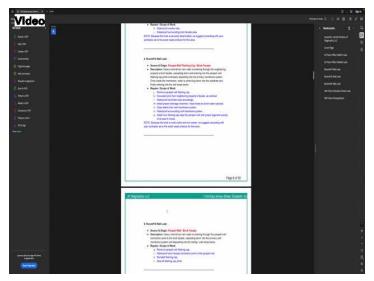


Repair Point: Remove panels from bulkhead wall around window and door frame. Waterproof and flash areas accordingly.

Report Video

1. Explanation of Report Findings

| Good | Fair | Poor | N/A | None |
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Explanation of Report Findings. FIRST download the report PDF then click the video above to play. MUST HAVE ADOBE ACROBAT FOR VIDEO TO PLAY.



Water Leak Detection Warranty Terms and Conditions

WARRANTY TYPE: TIER-3

WARRANTY TERMS/CONDITIONS: Full **6 Month** warranty to cover suggested repairs outlined within JP Diagnostics' Infrared Imaging source & origin report ONLY. If suggested repairs are completed by a contractor and the area(s) are still leaking within the allotted **6 month** period, JP Diagnostics will dispatch a technician at the earliest date availability from the date of a call back from customer to rescan the affected area(s). A follow up Infrared leak detection report will be generated within **(10) to (14)** business days unless otherwise indicated by JP Diagnostics representatives. Warranty activation date for all leak detection work begins on the day of report dispatch to client via email. Warranty termination date is exactly **6 months** from date of report dispatch.

WARRANTY ACTIVATION REQUIREMENTS: Email request by customer for rescan required for continuing water entry into the building's structure or subsurface plumbing system leak. NYC Contractor License, receipt for work completed by contractor as well as photographs of contractor repair process as per JP Diagnostics' leak detection report repair recommendations are **REQUIRED** for warranty activation.

Example of necessary photos:

- 1. Initial problem area before repairs
- 2. Excavated (if applicable) area showing underlying waterproofing and substrate
- 3. New waterproofing application
- 4. New envelope medium installation such as brick, EIFS, or siding

WARRANTY LIMITATIONS/EXEMPTIONS: Warranty does not include water leak areas outside of originally scanned points of entry, overview of underground plumbing system diagnostic, through internal structure or original external water entry points through structural defects. All water leaks outside of the original leak detection report fall under new leak detection terms and require separate approval and payment.

WARRANTY EXTENSION: Warranty extensions and upgrades may be purchased within **(60) days** of original water leak detection report dispatch to client. Warranty upgrades are not available after the allotted **(60) day upgrade grace period**. Available time extension: **6 months**; Available upgrades: **TIER-1**. Please consult JP Diagnostics representatives for details on available time extensions and **TIER-1** warranty service upgrade terms and conditions.

WARRANTY TERMINATION: Service warranties can and will be terminated upon failure to submit payment on time as per agreed upon water leak detection contract terms. Service warranties can and will be terminated upon failure of contractor to institute recommended repairs found within JP Diagnostics' water leak detection report or if the selected contractor is unlicensed in New York State.

WARRANTY TERMINATION / SPECIAL CIRCUMSTANCES: If special circumstances present concerning the project and all client participants, the warranty can be terminated indefinitely at any point in time. If circumstances exist, a notice of termination will be sent via email and 50% of the project cost will be refunded to the client within (10) to (14) business days from the date of the termination notice dispatch.

ADDITIONAL INFORMATION: If warranty TIER is upgraded, all previous warranty service conditions, upon upgrade, are terminated and new warranty TIER terms and conditions will be activated. NOTE: Upgrade in warranty TIER is not supplemental to original warranty service and original warranty start date will remain as date of water leak detection report generation unless otherwise arranged / authorized by JP Diagnostics representatives.

NOTE ON WARRANTY SERVICE AND CONDITIONS: All warranties are based on the institution of proper/accepted industry standards relating to overall building construction and assembly of building components. If, upon excavation of areas of building envelope, severe installation/assembly defect(s) of building components are found, all warranties can and will be voided. Prior to voiding the warranty due to improper installation/assembly, pictures will be provided of areas in question.