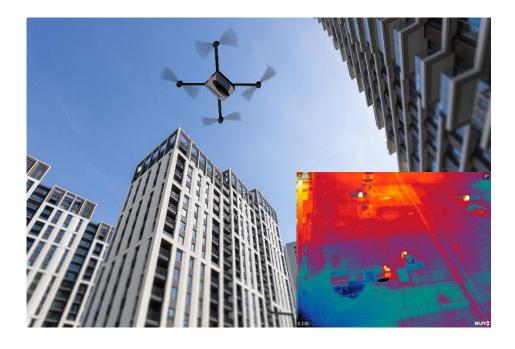
# 10 Hidden Roof Failures That Cost You Thousands

How to Identify the Subtle Warning Signs Before They Become Expensive Problems



Science-based Testing. Unbiased Reporting. Proven Savings.

# Prepared by **CORE Forensics, LLC**Independent Forensic Roof Testing & Building Envelope Consulting www.coreforensicstx.com



# 10 Hidden Roof Failures That Cost You Thousands

# Why You Need This Guide

Every year, property owners and managers lose millions to undetected roof failures. Most issues aren't dramatic leaks — they're hidden failures that silently erode your roof system and drain your maintenance budget.

At CORE Forensics, we specialize in uncovering what the eye can't see — combining laboratory analysis, infrared scanning, and ASTM-aligned testing to expose damage that would otherwise remain hidden until it's too late.

#### 1. Hidden Moisture in Roof Insulation

Moisture trapped between membranes and insulation layers leads to mold, loss of insulation value, and premature system failure.

# 2. Fastener Back-Outs Beneath Membranes

Hidden loosening of fasteners or plates beneath single-ply membranes creates uplift vulnerability and punctures.

## 3. Wet Seams and Compromised Adhesion

Water intrusion through partially unbonded seams leads to progressive infiltration invisible from the surface.

#### 4. Hidden Deck Corrosion

Moisture trapped beneath mechanically fastened membranes corrodes metal decks, weakening structural integrity.

## 5. Sub-Membrane Air Leakage

Air intrusion under the roof membrane promotes condensation, hidden wet insulation, and poor energy performance.

# 6. Trapped Water in Ballasted Systems

Water ponding beneath ballast accelerates insulation degradation and adds weight load.

## 7. Poorly Sealed Flashings and Penetrations

Minor gaps at roof-wall intersections or HVAC curbs allow wind-driven rain and hidden insulation wetting.

#### 8. Hidden Wind Uplift Damage

Uplift of membrane sections not visible to the naked eye after strong winds invalidates warranties.

## 9. Inadequate Drainage & Hidden Ponding

Blocked internal drains or low-slope defects allow standing water, accelerating roof aging.

## 10. Hidden Hail Fractures in Roof Membranes

Micro-cracking or substrate bruising allows gradual water infiltration and claim denial if not documented promptly



# 10 Hidden Roof Failures That Cost You Thousands

## When to Call a Forensic Roofing Expert

You should schedule a forensic assessment when:

- A severe weather event has occurred (hail, wind, ice)
- You suspect roof aging or deterioration
- You need documentation to support an insurance claim
- You're planning roof replacement and need unbiased data

#### **CORE Forensics Provides:**

Non-destructive infrared scanning, moisture probe testing, laboratory verification, and ASTM-aligned sampling with comprehensive, court-defensible reporting.

# Ready to Uncover the Hidden Costs?

Protect your property — request a forensic roof assessment today.

info@coreforensicstx.com | www.coreforensicstx.com About CORE Forensics

CORE Forensics is a Texas-based forensic engineering and testing firm specializing in roof, wall, and building-envelope diagnostics. We provide science-based, unbiased evidence to support property owners, adjusters, and design professionals in making confident, cost-effective decisions.

Services Include: Forensic Roof Moisture & Damage Analysis, Building Envelope Consulting, Laboratory & Field Testing, Expert Witness Support

