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COUNCIL FOR ACCREDITED AMERICAN
CERTIFICATION



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THIS REPORT IS INTENDED FOR AND CAN ONLY BE USED BY THE PURCHASER OF THIS REPORT.

IF THIS REPORT IS REQUESTED AS PART OF A REAL ESTATE TRANSACTION, ANY DISCUSSIONS OR DECISIONS SHOULD BE MADE WITH YOUR REALTOR OR LEGAL REPRESENTATIVE. IT IS NOT OUR INTENT OR RESPONSIBILITY TO NEGOTIATE FOR EITHER PARTY.

RE: REPAIR OR RESTORATION WORK RECOMMENDED ON THIS REPORT, THE USE OF LICENSED, TRAINED AND QUALIFIED PROFESSIONALS IS ALWAYS ADVISED.

Observations during the visual moisture and mold investigation

On Tuesday, March 16 , 2010, we were contracted to re-investigate concerns about water intrusion at:

Interview:

Last year the homeowner experienced a serious water intrusion into her new home which caused both water damage and mold growth into the home. During the delay in addressing the water intrusion problem, she experienced respiratory distress which may be attributed to the dampness or mold growth. According to the builder, the repairs on this unit were complete and ready for final build back.

Scope:

We evaluated the exterior decking, on this unit as well as the unit above and the neighboring houses.

We investigated inside the home systematically examining the walls and personal belongings for evidence of visible mold growth.

We observed the air handler.

Observations :

The homeowner has been resistant regarding final completion and build back of this unit until she was sure that all issues were resolved.

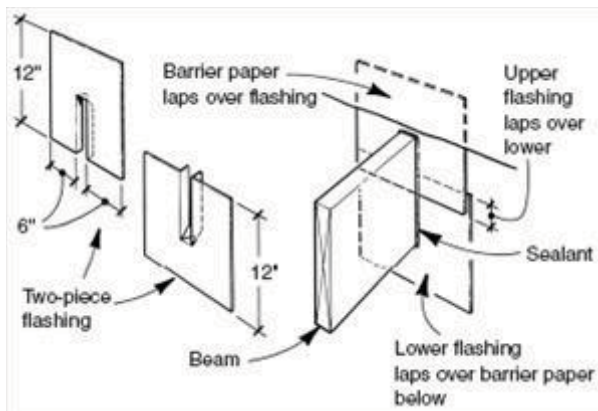
Over this past weekend she observed water intrusion in multiple locations around the office bedroom exterior door.



Using a hand-held moisture meter as well as a thermal imaging camera we examined the entire area around the door and the areas where the cantilevered balcony, from the unit above, penetrates the exterior of this condominium building.

Let's begin with the area above the door where the cantilevered deck joists are located, a quick review from our original report:

These condominium units are designed with decks that are structurally attached by cantilevering through the exterior framing of the unit. Without examining the original blueprints, one can reasonably determine that the flashing was incorrect or inadequately applied.



Cantilevered Joists/Beams

Cantilevered deck or balcony joists that project through the wall framing are trouble spots. Protect them with a two-part flashing sealed with urethane. The top flashing piece must overlap the bottom one.

In the figure above a depiction of flashing a cantilevered joist is seen, when observing the flashing on the decks in this neighborhood, it is impossible to determine how this flashing was achieved.

When observing the repaired and retrofit flashed deck, directly above the water intrusion area, one can see the use of additional flashing and, I assume, exterior rated aluminum tape.



If you observe closely, or simply zoom in on this shot, one can see open areas that remain.



During our investigation, in January, no areas of elevated moisture could be detected; however, using a smoke stick we could detect significant areas of air intrusion that corresponded with the windy conditions outside.

During our inspection on March 17, we did find elevated areas of moisture along two of the cantilevered joists.



This area of elevated moisture is directly in conjunction with the aforementioned concerns about openings to the outside. With the lights turned off in the room, we can see the sun.

This area of moisture intrusion did not contribute to the puddle of water seen on the floor previously in this report; however, could certainly become a problem if this area is not addressed and then finished with organic building materials.

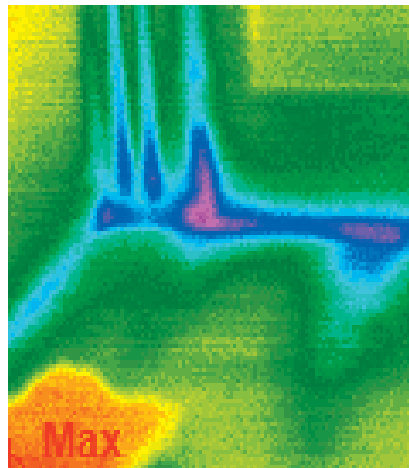
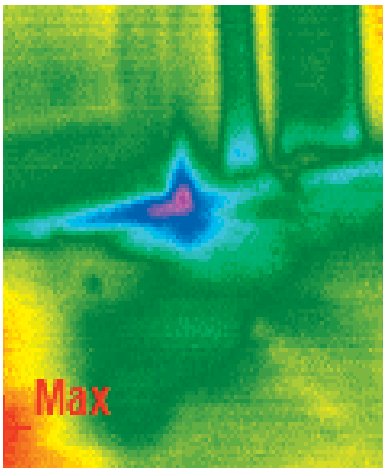
During our previous inspection we recommended that foam insulation be applied along the open penetrations, this was done on one joist and should be done on all the joists since this area was responsible for the major water intrusion and mold problem last year.

This joist is sealed



We moved the investigation back to the door to determine if the source of water intrusion was from the door, and we found two and possibly three distinct issues.

As you can see by the thermal images below, water intrusion occurred in two locations, one on each door.



Let's start with the functional door, the weather stripping does not extend all the way to threshold, and the door installation itself does not provide a tight seal.



These situations can generally be addressed with additional caulking as well as adjusting the strike plate to provide a tight seal against the wind driven rain. Sometimes there is a need to install an additional deadbolt, at the top of the door, to provide protection when this door is exposed to open areas and high winds.

The overwhelming majority of the water intrusion occurred from the stationary door side, from behind the door frame.



It's impossible to determine if the flashing was installed correctly for this French door. When examined from the outside, there are number of openings and opportunities for water to intrude during windy conditions.

As you can see by the photographs below, any of these openings could allow wind driven rain to enter behind the door flashing.

All of these opportunities should be addressed and then **verified with a high pressure hose test** to determine if the repairs were successful.

The extent of the repair may become clearer once some of the trim is removed and the door flashing verified.

It makes no sense to finish and sheet rock the inside of this unit until we're sure that we've got the water intrusion corrected permanently.



In conclusion, this unit is once again experienced water and moisture intrusion from multiple locations; however, to a lesser degree than what was experienced last year.

The re-flashing of the cantilevered deck, from the unit above, seems to have mitigated a good deal of the water intrusion; however, the additional sealing of the deck joists through the exterior is warranted to prevent further moisture intrusion.

During our inspection we found no evidence of new or active mold growth; however, repeated exposure to elevated moisture levels will certainly cause structural concerns as well as the opportunity for mold growth to recur.