



**BONSAI** Inspection Company  
112 Woodlands Way \* Abington, MA 02351  
(781) 760-8162 www.bonsaiinsp.com

## SUMMARY OF FINDINGS

For the **LIMITED MOLD SAMPLING** performed at **1 ANYWHERE STREET, WEYMOUTH, MA** on **27NOV009**.

Provided for: **JOE HOMEOWNER**

## I. SCOPE OF WORK

1 Anywhere Street is a typical 1950's ranch style home with an attached garage and breezeway, facing northwest. A Limited Mold Screening (herein "the investigation") was requested to evaluate some suspected areas of mold growth on the sheathings of the attic. The client has owned the subject property for approximately 5 years and is in the process of selling. According to the client, these areas of suspected mold growth were first observed during a recent buyer's home inspection. Outdoor conditions included: temperature in the upper 40's, light winds, and high humidity due to early morning rains.

## II. VISUAL ASSESSMENT

Entrance into the attic was via a scuttle opening in the back hallway off the breezeway. The subject property has an "L" gable roofing configuration, and a newer (~2yrs per client) architectural-style roofing surface, which includes a functioning ridge vent. No soffit ventilation was observable. Attic temperature was approximately 55degF.

The attic construction is typical rafter construction and was fully accessible. Wood plank style roof decking is present. Insulation levels are approximately 6-8" of fiberglass depth, with no vapor barrier over an additional 1-2" of loose material. No insulation was present around the scuttle opening. The fiberglass insulation is almost certainly non-original and extends far into the eaves and likely over the soffit overhang. The sole bathroom exhaust fan discharge exits into the attic area.

A moderate amount of mold-like growth was observed on the northwest-facing attic sheathing sporadically covering approximately 80-100ft<sup>2</sup>. This area is located over the front living room, which, according to the client, is the primary occupation area. The client reported that none of the occupants suffered from any of the symptoms associated with allergen exposure.

## III. SAMPLING RESULTS

One Zefon Bio-Tape direct lift sample was taken from a centralized location of the suspected mold that appeared heaviest. Laboratory analysis showed high density of *Penecillium* spp., and a moderate level of *Aureobasidium* spp. were present. **These molds are ubiquitous, widespread, and are commonly associated with attic areas that have moisture accumulation problems.**



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The Penecillium group contains approximately 200 species, and is one of the most common mold types found in outdoor air in this region. Spores are dry and easily windblown. Most Penecillium are Type I allergens. Type I allergens may produce hay fever/asthma symptoms in some individuals. Hypersensitivity may develop over continued exposure.

The Aureobasidium group contains approximately 15 species, and is frequently associated with damp areas such as bathrooms/shower curtains/tile grout, and improperly maintained humidifiers. Aureobasidium is a wet spore that can be distributed by airborne water droplets, or (when dried out) air movement. Most Penecillium are Type I allergens. Type I allergens may produce hay fever/asthma symptoms in some individuals. Hypersensitivity may develop over continued exposure.

*(Sources - EMLab P&K & www.inspect-ny.com)*

#### IV. DETERMINATION OF MOISTURE SOURCE

A direct association could be made to the presence of Aureobasidium and the discharge of the bathroom exhaust into the attic area. The generalized location of the visible mold growth to the northwest-facing attic sheathing can likely be attributed to: the occupants and their typical location in the home, insufficient ventilation, limited insulation, the lack of any attic/interior vapor barrier, and the directional orientation of the affected area.

The following tasks are necessary for correction:

1. Bring insulation levels up to current specifications. New single-family homes are currently insulated to R-38 value in the attic. Installing the additional insulation perpendicular to the existing will help alleviate the thermal bypass caused by the ceiling joists.
2. Install an attic ventilation source at the soffits. Consult a qualified building contractor for your options.
3. Add an insulative cap to the attic scuttle opening - this is a major entryway of interior air into the attic.
4. Reconfigure the bathroom exhaust fan to discharge to the exterior (not just into the soffit!). If the bathroom fan is an older model - now may be a good time to consider updating to a modern unit.
5. Control interior humidity levels. The US EPA's preferred interior humidity level in homes is <50%. Purchase an inexpensive humidity monitor and check your levels - levels above 50% should not have additional humidity added. If a humidifier must be used, follow the recommendations of the .pdf attachment, "EPA Humidifier Fact Sheet"
6. Humidity levels are likely to be well above 50% during the warmer seasons - for that I recommend you install and use a dehumidifier to keep levels as close to 50% as possible.



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As a courtesy, Bonsai suggests contacting ACME Venting Co., of Anytown, MA. They may be contacted at 781-555-1212.

### **V. REMEDIATION**

Under most circumstances, attic air quality has little to no effect on indoor air quality. The air inside a properly insulated and ventilated attic is outside the thermal and pressure boundaries of the interior. Therefore, interior air usually flows outward and into the attic, and not vice-versa.

However, due to the amount of surface area that has been visibly affected and the potential for future home inspection(s) as part of your transaction, you may wish to secure the services of a professional remediator to clean/remove the existing mold growth. If the recommendations from section IV are followed, no additional remediation (such as an anti-microbial coating) other than cleaning is warranted.

Bonsai Inspection Company has inspected similar remediation efforts of Acme Drying, of So. Othertown, MA, and found them to be of satisfactory quality. They may be contacted at 800-555-1234, or at <http://www.acme.com>. Bonsai Inspection Company is no way associated with Acme Drying, and receives no compensation for their referral.

Regards,  
BONSAI Inspection Company

A handwritten signature in black ink, appearing to read 'MC' followed by a long horizontal stroke.

Michael F. Ciavattieri, Owner

- Certified Mold Inspector/Mold Assessor/Indoor Air Quality Technician (ESA) #2219
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