



C&W Environmental Consulting, Inc.

July 1, 2011

**Mr. Mark Easterday
Real Estate Advisor
The Mesh Network, Inc.
2110 S. Bascom Avenue, #101
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**Subject: Report of Findings
Site Address: 259 Pilgrim Loop, Fremont, CA**

Background

The subject site is two-story, single family residence constructed of standard construction materials. A home inspection conducted due to an impending real estate transaction identified water damage and potential mold growth on the exposed exterior siding moisture barrier paper within the attic space.

C&W Environmental Consulting, Inc. (C&W) was asked to perform a limited inspection and sampling for mold within the attic space and to generate a report of findings.

Executive Summary

Ms. Christina Lombardo of C&W conducted the limited investigation of the attic space on June 27, 2011. The property was inspected with a FLIR™ Thermal Imaging Infrared Camera and a Delmhorst™ handheld penetrating moisture meter. The compass directions referenced in this report are based on the main entry to the residence facing out towards the south. Photographs were taken and attached in the appendix below.

Inspection of the attic space identified visible water damage (i.e. material delamination, water staining, etc.) and mold growth on the exposed moisture barrier paper at the gables at and surrounding the roof vents along the east and west ends of the residence and at the pitched roof line (western facing wall) in the center of the attic space.

The water damage and mold growth observed in the attic space appears to be extending from the attic floor framing up to heights exceeding four (4) feet in each of the locations mentioned above with the heaviest damage occurring on the gable at the east end of the attic space.

Additionally, water damage and what appeared to be mold growth were identified on the exposed moisture barrier paper at the bottom of the exterior west wall (common to the garage) as viewed from the top of the chase in the attic space. *Note: The chase is located just left of the pitched roof line in the middle of the attic space.*

The presence of water damage and mold growth on the moisture barrier paper not only within the attic space, but also at the bottom of the exterior west wall suggests a potential system-wide failure of the exterior stucco system. This may be a result of a possible construction defect which allows exterior water sources to penetrate the building envelope.

The components of a traditional stucco system include wall sheathing, waterproof building paper, metal lath, and several layers of cementitious stucco. As viewed from the attic space, it appears in many locations that no wall sheathing or metal lath is present as part of the stucco wall system. It also appears the moisture barrier paper was applied to the wall studs directly and the stucco applied directly to the paper.

As the moisture barrier paper is not visible below the attic space, without the removal of interior finished sheetrock wall systems, there is no way to determine if the water/mold damage to the moisture barrier paper extends beneath the attic into the interstitial exterior wall cavities in the living spaces below.

A qualified structural engineer should be retained to inspect the property and comment on the waterproofing integrity of the exterior stucco system.

A sample of the mold growth was collected and confirmed as *Cladosporium* by laboratory analysis. No elevated moisture levels were detected in the attic at the time of the investigation.

Description of Inspection

The limited visual inspection of the attic space was conducted on June 27, 2011.

The limited investigation of the attic space included only accessible surfaces at the time of our inspection, and did not include concealed portions of the structure (e.g. unexposed wall or ceiling cavities).

Sampling

Bulk Sampling:

One bulk sample collected on June 27, 2011 from the following location indicates the **presence** of mold growth:

- Attic Space – moisture barrier paper

Sample Number	Location	Fungal Types Detected	Abundance
259-62711-B1	Attic Space Moisture Barrier Paper	<i>Cladosporium</i>	2+

The bulk sample was collected and placed within a Ziploc baggie for transport and submittal to the laboratory.

The mold sample was submitted under chain-of-custody to Environmental Microbiology Laboratory, Inc. (EML) in San Bruno, California for analysis. EML is an EMPAT accredited laboratory with the American Industrial Hygiene Association (AIHA). A copy of the available original laboratory data sheets is attached.

Sample Interpretation

Bulk samples are collected to demonstrate the density of fungal structures associated with colonization on samples taken from surfaces. No current standardization exists with regard to laboratory analysis or interpretation of results. The scale of 1+ to 4+ that is used by EML indicates the heaviness of the mold growth on the sample provided to the laboratory, rather than the area of mold growth on the surface sampled in the field. The results of analysis of bulk samples are used as one component of the array of information necessary for the field investigator to make decisions regarding appropriate courses of action.

Recommendations

Inspection of the attic space confirmed the presence of water damage and mold growth on the exposed exterior moisture barrier in several locations and identified conditions that suggest a potential system-wide failure of the exterior stucco system.

C&W does not recommend any mold remediation activities until the source of the water intrusion has been confirmed and repaired and the extent of the damage determined.

C&W recommends a qualified structural engineer be retained to inspect the property and comment on the waterproofing integrity of the exterior stucco system.

Please contact me should you have any questions regarding this report. Thank you for the opportunity to be of service.

Regards,
C&W Environmental Consulting, Inc.

A handwritten signature in black ink, appearing to read 'CLombardo', written in a cursive style.

Christina Lombardo, CSST, CLI
Vice-President

APPENDIX A: PHOTOGRAPHIC DOCUMENTATION



Attic Space – Gable at East End – Moisture Barrier Paper – Visible water and mold damage



Attic Space – Gable at East End – Moisture Barrier Paper – Visible water and mold damage



Attic Space – Gable at East End – Moisture Barrier Paper – Visible water and mold damage extending upward from attic floor



Attic Space – Gable at East End – Moisture Barrier Paper – Visible water and mold damage



Attic Space – Chase at center of attic adjacent to the pitched roof line



Attic Space – Chase – Center of attic – Bottom of west exterior wall (common to the garage) – Moisture barrier paper – Visible water damage and mold growth



Attic Space – Gable at West End – Moisture Barrier Paper – Visible water damage and mold growth – Note: Different types and installation of moisture barrier paper



Attic Space – Gable at West End – Moisture Barrier Paper – Visible water damage and mold growth



Attic Space – Gable at West End – Moisture Barrier Paper – Visible water damage and mold growth



Attic Space – Gable at West End – Moisture Barrier Paper – Visible water damage and mold growth



**Attic Space – Gable at West End – Moisture Barrier Paper - No metal lath or substrate –
Stucco applied directly to paper**