Robson Forensic

Engineers, Architects, Scientists & Fire Investigators

DESIGN AND CONSTRUCTION DEFECTS CAUSE MOLD

Architectural & HVAC Professional Liability

A couple hired a construction contractor and his newly-licensed architect son to design and build a high-end modern house. The design included large expanses of glass wall panels. The massive heating system (four air handlers and a boiler) was provided as a design/build effort by an HVAC subcontractor. Even so, during a relatively mild heating season the owners were unable to maintain comfort near the windows. In fact, so much water ran off the inside of the glass that it saturated adjacent surfaces and caused mold.

We reviewed the architect's design and construction documents, what was actually built, and the design and equipment provided by HVAC contractor. We determined that the work of all three parties was well below the applicable standards of care. The architect had specified a low-end curtain wall system that for this climate, made high heat bills, comfort problems and condensation predictable. The installed window system required a constant wash of warm air from below to prevent condensation, and the GC and his sub located the diffusers where they could not keep the windows dry or warm.

To make up for the window wall defects, unusual attention was required in designing and installing the HVAC system. However, the heating contractor only provided a generic system that was incapable of maintaining acceptable conditions. The HVAC defects were due in part to GC's failure to give the heating contractor accurate drawings for system design, and also to the contractor's inattention to actual conditions once he got on site. Since the heating systems design went through a shop drawing submittal process, the architect and GC should each have flagged the defects before the heating system was ever installed.

For more information please contact one of our experts in the following groups:

- *Professional Liability*
- *Mechanical Engineering*
- *Architecture*