

THE CONTROL BUILDING AT THE INSURANCE RESEARCH LAB FOR BETTER HOMES

Background

The control building was built with an annular space around it to allow for environmental testing of different kinds of wall panels. One part of the wall panel that can be modified is the exterior finish, such as brick, vinyl siding, aluminum siding. By using different sensors the inside portion of the wall cavity can be monitored for humidity, wood moisture content, temperature and mould growth.



Metal siding

Brick finish



Exterior view of the control building

Expected Outcomes

After the sensors are installed, the first goal is to monitor the environment to obtain a better idea of the characteristics of the wall cavity and the sensors. Once this has been completed the wall cavity will be deliberately altered in a controlled manner, whilst being monitored to see how the cavity environment changes. This work will be extended to better understand the conditions that affect mould growth in houses.



Top: The annular space of the control building and a humidity sensor. Below: The sensors that are to be installed into the wall panel. From left to right: moisture pins and temperature, mould sensor, moisture wafer, installed sensors.

