Portable classroom buildings share many of the same concerns as a traditional building but also have some special considerations. Moisture control is the single most important issue. Portable classrooms have their own plumbing system, restrooms, sinks, water fountains, and hot water heaters, all of which can leak and be absorbed by the wood substrate beneath the finished floor surface. Hard surface areas have been installed in all portable restrooms and around sink and drinking fountains. Care must be taken to drain water, including downspouts, away from the portable.

Also, these buildings are often poorly insulated between walls causing cold bridges creating condensation points. Moving the portables has also created unintentional migration points for air leaks between the interior and exterior of the building that can lead to condensation.

Portables are many times moved onto grounds covered with vegetation. If the vegetation is not removed prior to enclosing the space beneath the building with "skirting" methane gas created by the decay of grass and weeds may be drawn into the portable. Methane is a natural by-product of all decaying plants and animals. It does carry an odor but is not a health or safety issue except in extremely high concentrations relation to petroleum product production or some agricultural situations. Venting the space under the portable by creating a cross-ventilation flow and obstructing water from pooling helps resolve this issue. Plumbing lines are susceptible to freezing and need to be protected with heat tape.

The HVAC units offer both heating and cooling. The position of the outdoor air intakes on these units is often found to be minimal. OPS staff has found and reset many of these dampers.