



## ***Masonry Wall Drainage***

By Jim Lucas

In masonry buildings using clay or concrete brick as the primary wall element, efflorescence or lime run is an occasional cause for an interesting jobsite meeting.

If the staining is occurring at the base of the wall or above / alongside openings or above shelf angles, the problem is often poor drainage.

Using Mortar Net or another mortar collection device will get water that penetrates the veneer to the flashing quickly but, if the water can't escape the wall quickly, efflorescence or lime run will result.

If the construction of the masonry wall is nearly perfect, problems can still arise if the air barrier is flawed because, in the winter, warm, moist air will work its way through the structural wall to the cavity where the dew point will be reached resulting in condensation either on the galvanized ties or the inside face of the brick. Either the ties will rot quickly or staining of the masonry could occur.

There could even be leakage to the interior of the building if there are any flaws in the flashing as water is ponding on the flashing.

The culprit in these instances is the cotton sash cord used as a wick every 24" down the wall at the base of the wall, at the shelf angles and above the openings.

The theory behind this type of weep device is that the cotton cord will wick water out of the wall until the cord rots. At that point, there is a hole in the wall that drains quite freely.

The problem is that, often, cotton sash cord has a small percentage of polyester or other synthetic to keep it from rotting and the cord winds up collecting fines and becoming a cork.

Not only does the wall not drain properly but there is no air flow to dry the condensation occurring in the cavity if the air barrier is the problem.

Other times, it works as designed but creates a hole that allows insects to nest in the wall.

While 1,000 lf of cotton cord costs less than a box of weep vents or cell vents (installed properly, they drain about the same square feet of wall), the performance of the mesh weeps or the cellular vents is far superior. The mesh vents even look something like a mortar joint from 10' away improving the look of the wall as well.

While my preference is for the mesh vent (because of aesthetics) the performance and cost for the cellular vent is roughly the same.

With rain screen principles becoming more common in masonry construction as the need to dry the cavity becomes increasingly clear, the number of vents is doubled (or more) and the mesh vents appearance advantage is even greater.

So, calculate the cost difference for mesh or cellular vents versus sash cord installed properly and see if the difference is worth risking even one interesting jobsite meeting in 2020.

*Jim Lucas is an independent manufacturer's rep and has represented Mortar Net Solutions for over 30 years.*

*Have Questions? Call Me at 219.844.6857*