

The widely used Stucco

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Stucco is familiar to everybody as a common exterior wall material widely used on the residential and commercial buildings in BC. The conventional stucco is composed of cement, granular and water. Some of them add plaster to increase the applicability. It is still popular for its rich of color, moderate cost and effectiveness.

As the most kinds of wall material, the conventional stucco is water shed (drain screen) other than water tight material, which cannot stand long time moisture. Although the wall has to be weatherable of wind, frost, rain and snow, especially under our long lasting raining season, the moisture would not be too much due to the drainage of the wall and the function of overhang. Even if any water penetrated the wall, the building paper or house wrap was the 2nd protection on sheathing. It should be fine unless there is a permanent wet. Since the end of 1990s, there are constructions adopting the rain screen technique which an open air sandwich layer is built to balance the pressure in between the wall material and building paper. It is effectively preventing the water intrusion. Also we know the key of building paper. Here we have to mention the synthetic stucco without building paper generically in the early 1990s. It caused a lot of trouble of water leaking and was stopped after a few years. Fortunately it was not widely used on local residential houses.



The most condition of conventional stucco wall is the crack. It normally showed up in my inspections, which is most often located at the sides of doors or windows, the corner of walls. This is caused by the stress

concentration of different adjacent materials plus the thermal expansion and uneven settlement. Normally this is not a structure concern and no leakage worry. It could be fixed by paint. Once the crack is over 1/8", it has to be filled up first then painted by breathable coating. But if there is more than one crack in the same direction in one area, the structure engineer should get involved. Ex. Figure 2, the wall contacted walk way. It should be a minimum 6" clearance to avoid the moisture wicking up which could cause moisture damage to structure and moss grown up. In case of the building settlement, there may be a negative grade towards the wall foundation. This would be the bad scenario. Also any plant encroaching to the siding should be removed to keep the siding dry fast. In addition, the flashing and gutter of wall and roof should be well addressed. It is not often seen but a good solution to put a kick-out in place to prevent a large amount of water rundown from damaging the inside of the wall.

Stucco belongs to low maintenance wall but not maintenance free. It should be checked and fixed annually. Stains can be washed by water and cleansers. The entire service and paint should be done in about every 5 years.