

Wood balconies 101

By Stacey McDougall, P.Tech.(Eng.), LEED AP BD+C, NCSO



Stacey McDougall.



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Balconies are a feature of many condominiums. Balconies are typically constructed of wood or concrete, and the structure is often covered with a protective membrane. It is important to understand how balcony protection works to understand how to care for it and when to report concerns to the condominium board. Ideally, balconies will be inspected every few years by a knowledgeable person engaged by the board, but owners can also play an important role in balcony condition review. This article will focus on wood balconies.

Exposed wood balconies are designed so that airflow around the balcony structure allows the wood to dry, reducing the opportunity for rot. Wood elements should be painted or stained regularly to protect the wood and any structural members with rot or that are heavily curled/cracked and replaced during painting programs. Alternately, the wood structure may be covered, typically with either a vinyl membrane or a liquid-applied pedestrian deck coating. The vinyl membrane is susceptible to damage from sharp objects, which may include furniture feet. Both types of membranes will be damaged if objects are scraped

over the surface, like chairs, so we recommend ensuring furniture feet are padded. The weight of objects placed on a balcony should also be considered. Very heavy objects, such as hot tubs or deep planter boxes, should not be placed on balconies without first confirming that the structure can support the load, typically through an engineering review.

The vinyl membrane has a life expectancy of 15 to 20 years, depending on weather, quality of the membrane, and the skill of the installer. Metal flashing is installed around the edges of the balcony, and the membrane is glued to the deck sheathing and either welded to the top surface of the flashing or clipped to the bottom edge. In our experience, the clips fall off well before the membrane reaches the end of its life cycle, and will need to be reset periodically to prevent the membrane from curling up at the edges. At the end of its life cycle, vinyl membrane is removed entirely and replaced, which necessitates removal of cladding at the base of the balcony wall if present. Holes in the membrane, failures in the welded seams, or areas where the membrane doesn't fully cover the sheathing will allow water to penetrate the wood structure and should be reported to the condominium board so repairs can be made. Proactive replacement is the key to avoiding wood rot.

Liquid-applied pedestrian deck coating

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typically consists of a waterproof base layer and a sacrificial top coat. The coating should extend over the top of the flashing to the edge of the balcony. Assuming the coating was installed properly, an additional top coat can be applied without removing the pedestrian deck coating, typically on an approximately 20-year cycle, with localized full system repairs. Any areas where the coating is worn through or missing should be reported. This can include scrapes and burns, as well as original installation deficiencies.

Any soft spots on a wood balcony should be reported to the condominium board, as these may indicate rot in the deck sheathing and pose a safety hazard. Repairs to wood structure rot are expensive, and depending on the structural design of the building, may involve work inside units, which is disruptive to residents. Early identification of issues will prevent structural damage and reduce repair costs significantly, which benefits everyone. A building envelope consultant can assist in identifying areas of concern and ensure replacement/maintenance programs incorporate best practices for durability and longevity.

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