



## The Pitfalls of Deferring Maintenance and Repairs in Condominiums

By Justin Tudor, Vice President,  
Keller Engineering

Condominium owners and directors are typically more aware of the maintenance costs and requirements of their buildings than their freehold-living counterparts. This is by virtue of legislation requiring that common element maintenance and replacement plans be considered through regular reserve fund studies. However, like the freehold owner who elects to put off their roof replacement until next year, condominium corporations have also frequently elected to defer maintenance obligations, typically due to financial constraints, in the hopes that they won't be subject to one of the pitfalls of deferred maintenance programs.

Deferring maintenance can have measurable short term gains. Delaying repairs or replacement to building components or systems can be done to provide cash flow relief, meet budgetary expectations, or delay the non-financial impact of the project.

However, deferring maintenance also comes with risks and potential costs. Below I discuss 4 potential Pitfalls of deferring required maintenance.

### **Pitfall 1: Lack of consideration of the risks associated with emergency failure.**

Properly forecasted and planned replacement and repair projects consider construction variables such as urgency and material delivery time. There are numerous systems throughout condominium complexes that require continuous operation and greatly affect the community in the event of unexpected failure. While considering deferring a repair or replacement project, a corporation must address the risk, adverse impact, and the additional costs that an emergency failure of the system could impose during the deferral period.

Envision a main breaker switch replacement that is deferred due to immediate budgetary issues. Properly planned, any scheduled shutdown of the power during the project is addressed by notification to the owners or by arrangements of temporary power. In the event of emergency failure, the risks associated with the potential lack of availability and costs of emergency power, coupled with the additional strain of dealing with a community that just lost power may be worth re-evaluating budgetary priorities on aging equipment where the negative impact of unexpected failure is so great.





## **Pitfall 2: Uncontrolled or concealed continual degradation.**

Individual building elements are part of an overall system that rely on the integrity and proper functionality of all components. A failed caulking joint around a window can lead to water infiltration that damages drywall and saturates insulation, resulting in heat loss at the wall assembly. Deferring maintenance of elements where the failure is damaging other, sometimes concealed, secondary elements without proper consideration of the costs and impacts of repairing these secondary elements will often result in significantly increased future maintenance and repair costs.

Consider a multi-level parking garage, where intermediate slab and landscape covered podium slab membranes have been knowingly leaking for years. Membrane repairs have been deferred because the comprehensive proper repair involves significant work to localized areas of membrane failure. In the interim, tarps and eavestroughing have been attached to the ceiling of the garage to manage the penetrating water and ensure it is not dripping onto cars below. Large cracks in the slabs have received a polyurethane crack injections. These interim measures can be installed for years in order to defer (and turn a blind eye to) a parking garage renewal project, however, as the concrete continues to be penetrated with water containing chlorides and chemicals, it will degrade at an accelerated rate. Concrete repairs cost make up a significant portion of any parking garage project and the time associated with executing and curing the concrete repairs are the largest factor when determining how long the garage will be partially or fully closed to traffic.

Countless localized and minor repairs projects have spiralled into large, multi-year, costly, and disruptive projects under the guise of deferred maintenance.

## **Pitfall 3: Ignorance to volatility of material costs.**

Reserve fund plans and condominium budgets expect costs to increase over time in line with inflation. When evaluating future costs of deferred maintenance, condominiums often look to the local construction price indices which indicate year over year general inflation. However, materials or equipment that are related to a specific commodity, such as aluminum in high-rise windows or petroleum in asphalt, may see price increases over a relatively short period of time that fall outside the range of the general forecasted inflation rates.

Window frame replacement projects that were deferred from 2013 to 2015 would have expected a general construction price increase of 2.3% (Statistics Canada), however, aluminum prices varied significantly in this period, increasing by 17% at their peak. Although aluminium does not make up the entirety of these projects, over a 2-year period, the changes in material costs affected overall construction costs, resulting in an estimated increase in project cost of 6%. These unexpected changes could negate the original benefits of deferral altogether.





## **Pitfall 4: Life-extending repairs associated with deferral does not return an appropriate benefit.**

Occasionally, useful service lives of aging elements can be extended with minor to moderate repairs, thus reasonably deferring their subsequent major overhaul or replacement. The cost and scale of these life-extending repairs must be evaluated in relation to the benefit or savings of their deferral. The cost of the life-extending repairs may not be reasonable when considering the amount of time that the repairs defer the subsequent project.

Older aluminium window systems, depending on their exposure and use, have a typical service life of 35-50 years. As they age, the insulated glazing unit seals fail, their external sealants deteriorate, their hardware and mechanisms fail, their locks seize, and their weather stripping is no longer functional. These failures can result in decreased overall performance exhibited by heat loss, air exfiltration, and water penetration. All these elements can be replaced without replacing the frames; glass can be replaced with new, hardware can be swapped out, mechanism can be lubricated. The cost of these refurbishments will always be significantly lower than a complete window frame replacement, however, if the value of the refurbishment is 35% of the value of the future replacement, and is only expected to extend the service life of the windows by 25%, consideration should be given to dealing with the window elements as a whole, without delay.

## **Managing Risk**

Deferring repairs and assessing priorities is a part of building management and operation. The money isn't always available every year, and if it is, it may not be in the best interest of the community to carry out a specific project at a given time. Ontario condominiums are fortunate that with a comprehensively monitored and followed reserve fund plan, a reasonable contingency, and a detailed eye towards an appropriately managed maintenance contract, the need for deferral is often mitigated.

All project deferrals contain risk, which are evaluated by the probability of failure in relation to the impact of failure. In the examples above, we've suggested cases where the risks were either improperly managed or ignored altogether. A comprehensive review and preventative maintenance inspection should be performed when considering any deferral to ensure that you do not get trapped in one of the pitfalls.

### **Sources:**

Statistics Canada, CANSIM, Price indexes of apartment and non-residential building construction, by type of building and major sub-trade group, 2016-11-08

---

For more information, other resources or to discover what Keller Engineering can do for you, visit [kellerengineering.com](http://kellerengineering.com).