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# Avoiding Major Construction Pitfalls

A well-executed construction project is a result of strong collaboration between the engineering consultant, the property manager, the board, and the contractor. This article discusses how to avoid common pitfalls.

### **Pitfall No. 1 – Getting off to a bad start.**

Establishing a good working relationship with a reputable and knowledgeable consulting firm is vital to success, especially for older condominiums, because of the increased financial demands and complexity posed by aging building systems. A good consultant should provide honest, reliable building engineering and capital planning advice for strategically managing your corporation's assets.

The consultant should meet with the corporation before starting a major construction project to review the work areas. This allows for discussion of critical success factors. These include resolving technical concerns and practical site maintenance operations (e.g., allowing for snow pile-up areas as part of a new landscaping design).

The consultant can then establish a scope of work that addresses the needs of your building and the goals of the corporation. This is captured in the project

specifications and details provided to contractors for pricing. Incomplete, inconsistent, or unclear specifications and details (i.e., convoluted wording, contradictory statements, ambiguous drawings, etc.) can translate into misunderstanding in pricing, confusion or errors in the field and a general loss in efficiency during construction.

The consultant will tender the work to obtain competitive pricing. The contractors invited to bid on the work must be pre-qualified, through a careful review of their references, to ensure they have successfully completed projects of a similar size and complexity.

During the tender period, a meeting should be scheduled onsite with the bidders. This allows the consultant to summarize their specification package and draw attention to any unique details. This process helps contractors fully understand the project specifics, examine site conditions, and ask clarifying questions.

The consultant can assist in reviewing the bids, which involves checking for potential errors or qualifications and helping the board decide to award the contract. Once the contract has been awarded, a preconstruction meeting should be held onsite with all parties present to set clear project expectations. This sets the stage

for a collaborative project team environment by establishing proper channels for communication and clear roles and responsibilities for everyone involved.

### **Pitfall No. 2 – We're spending more than we planned!**

Sound engineering advice will help balance owner expectations for repairs and renewals with the corporation's financial realities. Before embarking on significant capital expenditure, the consultant should be engaged to perform a condition evaluation of the building component(s). Their report should include a budget estimate for the recommended repair or renewal strategies. This budget can be used in your reserve fund study. When the project moves ahead, the specifications should be written with this budget in mind to help control scope creep at the design stage. A contingency should be included at all stages to account for unforeseen conditions.

Tendering work early, before contractors become busy with other work, is critical to obtaining optimal pricing. Exterior construction work should be tendered in the winter months, which means starting the process in the Fall or earlier, depending on the project's complexity.

The consultant should track budgets









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during construction and provide updated cost-to-complete projections regularly. This allows deviations in unit price quantities to be caught early, avoiding nasty surprises. When dealing with changes in scope and Change Orders, the consultant can facilitate price and schedule negotiations with the contractor.

### **Pitfall No. 3 – The project is taking too long!**

The contractor should provide a preliminary schedule at the time of tendering and a more detailed one at the project start. The schedule should account for lead times, mock-ups/ decision-making time, and reasonable expectations for weather delays for exterior work. Updates to the schedule should be made each month. If a schedule starts to go offside, the contractor can be asked to add additional forces and bring the schedule back into line, but they can only do this if realistic monthly schedule updates are being prepared.

Considerations should include supply-chain limitations and the procurement of materials earlier in the project process if required. Projects which involve extensive landscaping may need plant materials to be bought early in the Spring to avoid limited nursery inventories later in the season. This may require onsite staging areas for the contractor to store materials securely.

Large projects may need to be completed in phases. Phasing is dictated by the work area size made available to the contractor at any one time during construction. For garage repair projects, for example, the

number of vacant/ available parking stalls may determine the size of each phase. The contractor may also take up areas directly above or below due to shoring requirements if concrete repairs are required. Plan ahead to review the feasibility of freeing up alternate spaces elsewhere on the property or nearby the site to make work areas larger - reducing the number of phases and shortening the overall schedule.

Obtain permits early on, as this process can take time. This is especially true for tree protection and removal permits, where a separate arborist report may be required.

During construction, considerations for maintaining building access and other critical pathways (i.e., fire routes, wheel-trans pick-up or drop-off, mail/ parcel delivery) must also be established. Having these discussions before construction commences will avoid wasting time and delaying progress.

### **Pitfall No. 4 – We aren't getting what we paid for!**

Construction review is the only way to ensure the work is completed per the specifications. Getting quality right is often the difference between a 5-year repair and a 25-year repair. As they say, the devil is in the details, and the repair on the site should align closely with the specifications. Construction logistics must be carefully thought out, especially where there is a change in building materials or trades who will be completing the work. Regular reviews help ensure the corporation is getting what it paid for regarding durability, performance, and risk management.

It's no surprise that construction has a lot of documentation to deal with. Organized records should be kept for future reference. At the end of the project, closeout and warranty documentation must be collected and distributed. This includes maintenance instructions for property management.

### **Pitfall No. 5 – Nobody knows what is going on!**

For any major construction project to be a success, the entire project team must communicate well. There should be regular communication, both in-person and over the phone. When a problem arises, a well-functioning team can take it in stride.

Regular site meetings will also help prevent problems from sneaking up on you. Detailed meeting minutes should be taken to document discussions and agreements. Establish accountability — not just by documenting what needs to be done, but also by who will be responsible for doing it and by when. Make sure that everyone has access to relevant information.

Construction notices and updates by Property Management will help manage resident expectations and should be provided frequently. ■

**Patrick Cutten** is a Professional Engineer and project manager with Synergy Partner's restoration team in Toronto. Patrick has worked with many condominiums on capital repair projects and condition evaluations and is an active member of the International Concrete Repair Institute and the CSA-S413 technical committee. [synergypartners.ca](http://synergypartners.ca)



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