

Capital Replacement Projects: Professional Design and Inspection Produce Quality Results

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As your community or building ages, it will require an increasing amount of maintenance and large scale replacement or improvement projects will become necessary. Your association's capital reserve funding plan should anticipate these projects such that proper funding is available when it is needed. Periodically updating your capital reserve funding plan will help ensure proper funds will be available. The larger replacement projects may involve roofs, façades/siding, concrete, waterproofing, retaining walls, parking structures, decks/balconies, pavement, HVAC systems, recreation facilities or other elements of the community or building or related amenities of the site.

While these projects may seem straightforward in terms of scope, in reality, they are construction projects with major expenses. It is important that an association move forward with these construction projects with the assistance of a qualified design professional. Proper designs, specifications, bid documents along with representation (inspection) during the construction process are paramount to the project's success. Sometimes, associations make hasty or unadvised decisions regarding these projects and construction defects or excessive costs can be the result. Merely obtaining three (3) bids with three (3) different approaches from three (3) different contractors can be the start of a project going bad. The bids submitted may be inadequate or incomplete for the desired result and the low bid or selected bid may even be artificially low (possibly resulting in claims for extras) or the bid just does not represent what is actually needed for the project. Even when using contractors with the best intentions, claims for extras are a big concern for a project without proper design or bid documents. Unfortunately, improper scope of work, defects in methods or materials or improper claims of payments for extras may only become evident years after the project is completed and fully paid for. Depending upon the type of project, the construction defects may result in water infiltration and damages, a reduced useful life of the new element, a need for premature remedial repairs or even the association having to redo the project entirely. Sometimes lengthy and costly litigation between the association and the contractor occurs as a result of these issues or payment disputes.

Prevention of the above scenario can be simple and relatively inexpensive. Typically, a design professional's fees range from 6% - 8% of the total construction costs dependent upon the size and type of project. Many times, these costs can be partially or even wholly recovered just by having a cost-effective design, having accurate quantity verifications performed in the field during the work and by having verification of adherence to design documents.

If designed and inspected properly, all reconstruction projects can be undertaken and completed with a high quality final work product and limited inconvenience to the residents. The design professional is retained to prepare a proper, cost effective design, construction specifications and bid documents for the proposed improvement. The design professional prepares construction plans, specifications and bid documents based on (but not limited to) the applicable Codes, ordinances, feasibility/needs of the project and the safety and wellbeing of the association. This effort provides peace of mind to the association that the project is being implemented with proper work scope, limits of work, methods and materials with the seal of an

experienced design professional. In short, the scope of work that is proposed is what is needed for the desired result. The association can then obtain competitive bids with an exact scope of work including specific details and requirements of what needs to be done. The design professional may also be involved in the selection and award of a contract to a qualified contractor through a competitive bid process. The competitive bid process ensures that the design plan and specifications are to be followed in full, with each contractor providing a quote for the same scope of work. The bid prices should be evaluated as well as the qualifications and experience of the contractor.

The design professional's value and responsibility to the association should not end with the preparation of the design documents. Too many times, the construction project begins, proceeds and is completed without the presence of a qualified inspector. The result, in some cases, can be a substandard quality work product, unverified or inaccurate quantities for payments, unverified or unnecessary changes or extras and/or worse yet, noncompliance to the original design plans and specifications. As alluded to above, the potential for problems can be much worse if there are no professional design documents prepared at all and a merely generic bid is used for the project.

Construction inspection by the professional of the work being performed is needed for the project to be completed in accordance with the design documents. While each project may require specific requirements, in general terms, the inspection services should include (but not be limited to) the following aspects:

1. Pre-construction meeting
 - a. Contractor crews and supervisors are made aware of project requirements, and required timeframes to complete work and expectations.
2. Material/Staging
 - a. Materials on job site should comply with project specification, approved submittals and/or approved alternate reported on a change order log.
 - b. Materials should be stored in accordance with project specifications and/or manufacturer requirements.
 - c. Staging areas should be maintained in safe and clean fashion each day.
3. Work Methods
 - a. Methods employed by contractor to complete work should conform to project specifications, manufacturer and industry standards.
 - b. Monitoring of weather related concerns and monitoring of methods and materials accordingly.
 - c. Checking or testing compaction or other material installation characteristics.
 - d. Safety measures employed by contractor should appear satisfactory, no glaring unsafe conditions should exist and site should be secured each day.
 - e. All aspects of work should comply with specifications, drawings and approved change orders while on site.
4. Field Reports
 - a. Neat and legible daily field reports should be prepared to avoid future disputes.
 - b. A summary of work should be prepared on weekly or as-needed basis and submitted to association's management.

5. Prepare Work Quantity Logs
 - a. Quantification of all work items should be completed, for both unit priced and lump sum quantities.
 - b. Summarize all work items on a spreadsheet and compare against contract quantities.
 - c. Spreadsheet should include location of work quantities and percentage of work completed to date. Prepare mapping as needed.
 - d. Review work quantities with contractor and document on site to avoid disputes.
 - e. Inspector and contractor representative to sign quantity logs each period.
 - f. Submit work item quantity logs with payment requests.

6. Review of Potential Additional Work
 - a. Identify if work is covered by project specifications and contract and NOT in fact an extra.
 - b. Complete thorough review of project specifications and contract to determine if extra work claim is covered.
 - c. If work is believed to be additional work, provide summary to association for approval.

7. Change Orders
 - a. Identify quantity of additional work and/or additional time required.
 - b. Estimate cost of additional work.
 - c. Submit summary including quantity and cost of additional work and/or additional time required to association.
 - d. Obtain approvals from contractor and association; distribute executed documents to design professional, contractor and association.

8. Progress Meetings
 - a. Coordinate, schedule and orchestrate progress meetings at job site with representatives from contractor, design professional, and association.
 - b. Prepare agenda of all relevant items including (but not limited to) construction schedule, change orders, payments, non-conforming issues and conflicts.
 - c. Prepare minutes of meeting and distribute to all participants.

9. Punch List Documents
 - a. Prepare and maintain on daily or weekly basis or as necessary to remain current.
 - b. Include completed work which fails to conform to specifications.
 - c. Include date and location of observed item and update after corrected, include date of correction.

10. Prepare Payment Approvals
 - a. Review contractor invoices and/or applications for payment.
 - b. Confirm percentage of work completed each pay period (all work completed each period shall be included on submitted invoice or application for payment).
 - c. Reject invoices or applications for payment with incorrect percentages of work completed or including items completed outside current work period.
 - d. Review partial release of lien from contractor and any subcontractors.
 - e. Reject invoices not accompanied by lien waivers.

- f. Prepare and submit memorandum to association indicating assessment of work quantities (i.e. items anticipated to exceed contract quantities, items anticipated to fall below contract quantities, items) and construction schedule (i.e. number of work days, project on time or delayed, estimated time to complete).
11. Communication
- a. Making sure the resident concerns are addressed each day.
 - b. Check messages frequently during work day and respond in timely fashion. Phone number provided to the association for 24 hour coverage.
 - c. Check messages regularly during non-working hours including evenings, weekends and holidays.
 - d. Respond to urgent messages during non-working hours including evenings, weekends and holidays.
 - e. Maintain daily communication with contractor for all projects (part time or full time projects).
 - f. Maintain daily communication with association's contact. Provide brief summary of daily activities, forecast for next day's activities and identify any specific concerns.

The professional inspection provides the assurance to the association that the work is being properly performed and verifies that proper payments are made. The design professional's responsibility during any construction project is to represent and advise the association during the construction process. They provide qualified and without prejudice inspection to lessen or eliminate the possibility of inferior workmanship or non-compliance with the specific design plans and specifications or other issues discussed above. The inspection allows for both the contractor and the association to be protected in the event of a dispute or a claim for additional work. Every aspect of the project should be well documented, allowing for a quick resolution to any real time or future claim.

Lack of involvement from a design professional and lack of professional representation on a construction project can result in problems even with contractors and associations with the best experience and intentions. Having a professional involved from start to finish provides for a proper end result and significantly reduces the potential for future problems.