



How does professional design and inspection produce quality results in capital replacement projects?

April 11, 2011 - Design / Build

As your buildings age, they will require an increasing amount of maintenance and large scale replacement or improvement projects will become necessary. A 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. Larger replacement projects may involve roofs, façades, plazas, waterproofing, retaining walls, parking structures, decks/balconies, pavement, HVAC systems, recreation facilities or other elements of the building or related amenities of the site.

It is important that an association move forward with construction projects with the assistance of a qualified design professional. Proper designs, specifications, bid documents and 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 bids with three different approaches from three 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 simply may 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 and often will exceed the cost of the design 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.

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. A 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.

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 have specific requirements, in general terms, the inspection services should include (but not be limited to) the following aspects:

1. Pre-construction meeting
2. Material/staging
3. Work methods
4. Field reports
5. Prepare work quantity logs
6. Review of potential additional work
7. Change orders
8. Progress meetings
9. Punch list documents
10. Prepare payment approvals
11. Communication
12. Final inspections and approvals

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.

Andrew Amorosi, PE, RS, is principal for The Falcon Group, Bridgewater, N.J.