

We read this article in a recent issue of *Michigan Constructor*, a publication by our peer Chapter in Michigan. We thought the "close-out" list was most appropriate to this issue's theme and would be of much use by the membership. In some instances, Louisiana law will not always be applicable to this list. But the article is intended more as a checklist rather than a legal guideline, and we feel certain that most folks in the business will already know the difference. While the article is about closing out a job for an owner, we think it also reiterates the importance of teamwork.

By Ralph J. Stephenson, P.E.

he process of closing out a construction project has emerged as one of the most important sequence of events a project team may encounter during the course of the project. Reasons for this are:

- The close out process usually results in a formal and legal acceptance of the facility by the owner or occupant. Thus responsibility for the correctness of the work passes from the design and construction team to the owner. The transition must be clear and indisputable to avoid contested claims and residual obligations.
- The conditions imposed by the warranties on work-manship, systems and equipment must be clearly defined and accepted by all concerned if adequate guarantees of performance are to be placed in force.
- The design and construction team must have a definitive point in time where their contractual obligations have been fulfilled and they can consider their legal relations closed out so far as project design and construction administration and operations are concerned.
- The owner must have a specific point in time where he can consider the project legally his without any hang over potential encumbrances from the design or construction team.
- The design and construction team must be able to use the project as a facility which they have no hesitation in describing or showing to prospects and current clients.
- A well-closed project is insurance of future good relations with specialty contractors on the job as subcontractors of the prime contractors.
- The properly closed project makes no unreasonable or unpredictable demands on the design and construction staff subsequent to the close out.

The close out process does not start as the construction phase is being completed but long before. Closing out is an ongoing action. Throughout all phases of the job the experienced construction team studies the documents and the work so as to set how each element can best be turned over to the owner in accordance with the contract.

Some of the many steps to be taken to properly close out a project are given below. The list is for all parties to the contract, since most are involved in the close out phase. Parties indicated in ( ) are those most concerned with the item. Where multiple parties are indicated it does not necessarily indicate the parties must participate together in the action.

The list is at random.

- Prepare a construction record package. This set of documents was formerly called the as built drawing set. (Contractor)
- Obtain, where appropriate, a certificate of occupancy, or equivalent document, from the local building department, or other regulatory and enforcement agency. (owner, architect/engineer, contractor)
- 3. Prepare, distribute and have approved by the owner, the architect/engineer and the contractors, a punch out procedure.

- (contractor, architect/engineer, owner)
- Punch out the project and complete the punch list requirements within an agreed upon time frame. (architect/engineer, contractor, owner)
- Prepare, submit and accept the operating and maintenance manuals for the total project. (contractor, owner)
- Clear final payments on the project and obtain proper waivers of lien. (contractor, owner)
- Provide the owner with a proper set of construction documents for reference use. (contractor, owner)
- 8. Collect and store job logs, diaries, daily reports, test reports and all other documentation generated by the job activities. (contractor, owner, architect/engineer)
- Bring all meeting minutes and record files up to date so as to

- permit easy use and retrieval of needed information. (contractor, owner, architect/engineer)
- Collect and bind all official and unofficial project photos. (contractor, owner, architect/engineer)
- Collect and record all project network plans, schedules and bar charts by issue number, subject and date. (contractor, owner)
- 12. Close out and store all correspondence and other record files. (contractor, owner, architect/engineer)
- 13. Assemble and properly store all shop drawings and other job related submittals. (contractor, owner, architect/engineer)
- 14. Request the architect/engineer of record to make an inspection resulting in the granting of a certificate of substantial completion. This may be required to obtain a certificate of occupancy. (contractor, owner)







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- 15. Plan and implement grand opening or preview festivities for major team members, company principals and others contributing to the planning, design and construction of the facility. (owner, contractor)
- 16. Each party should conduct their own job critique during which responsible parties to the project meet and identify points of strength and weaknesses in carrying out the job. One major product of this critique should be a set of recommendations for improvement of future performance, and documentation of the problems encountered and how they were resolved. (contractor, owner, architect/engineer)
- 17. Relinquish, or account for, all client owned tools, spare parts, and extra stocks of materials, rightfully the property of the owner. (contractor, owner)
- 18. Provide the owner copies of all releases, including final inspection certificates, occupancy permits, operating certificates, health department approvals and permits, and all other similar documents to allow the owner to occupy the building under full understanding of the conditions of the turnover. (contractor, owner, architect/engineer)
- 19. Label all electrical panel boxes, plumbing lines, valves and equipment as required for proper operation and maintenance. (contractor)
- 20. Provide all keys and keying schedules. (contractor, owner)
- 21. Submit a final statement of accounting, as required, to the owner and the architect/engineer. (owner, contractor, architect/engineer)
- 22. Obtain, prepare or issue a final change order reflecting adjustments to the contract sums not previously made by change orders. (contractor, architect/engineer, owner)
- 23. Send sincere thank you letters as appropriate to the owner, to

- the design team and to various contractors involved on the job. (contractor, architect/engineer)
- 24. Provide the owner a complete list of contractors and vendors participating in the job and indicating their installation responsibilities. (contractor)
- 25. Insure the owner is placed on the marketing call list, mailing list and other action tickler files as appropriate. (contractor, architect/engineer)
- 26. Arrange for such open house activities as may be desired or required (owner, contractor, architect/engineer)
- 27. Insure that your company identification is shown somewhere in the building if permitted. (owner, architect/engineer and contractor)
- 28. Insure the project is as clean or better than called for in the specifications when your staff moves off the job. Don't lose the good will of the owner by leaving him a dirty job. (contractor)
- 29. Properly train and turn over the facility to the owner's representatives. Depending on the size and complexity of the project, the training process should begin from one to three months before occupancy. (owner, contractor)
- 30. Establish and approve the start of all warranty and guarantee periods for all material and equipment on the job prior to owner making the facility operative. (owner, contractor, architect/engineer)
- 31. Prepare and submit to the owner a Construction Record Package. This package should contain the following: (contractor)
  - a. The construction record set referred to above.
  - b. Specific warranties required by the specifications
  - c. Workmanship or maintenance bonds required
  - d. Maintenance agreements called for by the specifications

- e. Damage and settlement surveys of the site and the facilities
- f. Final property surveys of the site.
- 32. Submit a final billing to the owner containing a list of all incomplete items and a properly assigned cost to each item.

  (contractor)
- 33. Advise the owner of any insurance changes over existing or past requirements or dates. (contractor, architect/engineer)
  - 34. Complete all pre start up testing, run in and instruction along with submission of operating and maintenance manuals.

    (contractor, owner)

Note: All pre start up and start up requirements should be fully described in the contract documents and clearly referenced to the warranty period.

- 35. Submit final meter readings for utilities, and measured records of stored fuel at the time of substantial completion. (contractor)
- 36. Submit to owner, the consent of surety to final payment if required. (contractor)
- 37. Have final inspection made by an experienced exterminator to rid the job of rodents, insects or other pests. (contractor, owner)
- 38. Read the full contract document requirements (drawings, specifications, and contract) for closing out the job. (contractor, owner, architect/engineer)
- 39. Provide the owner a certification as to the building area calculations including gross square footage leasable square footage, and area use assignments. (contractor)

For several years Consulting Engineer Ralph Stephenson has been collecting design and construction project and program close out items from industry experts in the planning, programming, design and construction professions. Stephenson, who lives in Mt Pleasant, has written a variety of books and articles on industry issues and since 1991 has facilitated over 60 partnering charters on major projects in Michigan and other parts of the country.