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## “Always Be Closing” - Closing Out a Ground-Up Senior Care Building



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Closing Out the construction of a major ground-up building is almost as complex as designing it. If that building happens to be a senior care facility, multiply that complexity by a value of ten. As the architect for the recently completed Five Towns Premier for Rehabilitation and Nursing in Woodmere New York, I can assure you that this is a true statement.

Closing out a large building is akin to dancing with multiple partners simultaneously, each with their own style and tempo. The architect is the choreographer of this controlled chaos, trying to synchronize the efforts of a multitude of stakeholders; contractors, design professionals, operational and clinical staff, vendors and governing agencies to name a few.

The goal of closing-out the construction process of course is to be able to legally occupy the building. Preparation for closing out a major building begins many months and sometimes even a year or more before the intended date of occupancy. Each set of stakeholders have their own critical paths which intertwine on and off during the close out process. These paths all converge at close-outs most important and final milestone, the health department pre-opening survey.

### Ownership

The owner/operator’s task list is long and complex. Following is a brief outline of some of the major items on the owner’s close-out checklist.

Ownership must set about filling hundreds of positions ranging from nurses and medical directors to maintenance, housekeeping and food service staff. The vetting and credentialing process to staff up a health care facility, as our continuing readers know, is both intensive and rigorous.

The operators must also negotiate numerous contracts with vendors including, linen services, food suppliers, medical waste companies, janitorial/housekeeping suppliers and so on.

Then, there is the purchase and or leasing of durable medical equipment, furnishings, business equipment and the selection of IT, data, telephones and security vendors and systems.

To be sure, the project architects, engineers and interior designers support the owner’s efforts on the selection of furniture, fixtures and equipment (FFE) and integrate these items into the project. However, the decision making lies with the owner and it must be done “early” if the target occupancy date is to be achieved.

The Owner and their Senior Staff must also draft written policies and procedures on a daunting array of operational categories including; clinical care, disaster and evacuation, pharmacy, quality of life, dietary services, rehabilitation, activities and abuse prevention just to name a few.



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The owner's building maintenance staff has their own critical path and works closely with the contractor, architects and engineers to hit their targets.

Operations and maintenance staff must organize a huge volume of information which they can access to run the building on a daily basis. This data can include; master/change keys, valve tag charts, as-built drawings, system belts and filters, material attic stock, and equipment/systems warranties/guarantees.

Operations staff also negotiates and manage vendor contracts on everything from annual sprinkler and fire alarm system monitoring/testing to refuse and snow removal.

During the latter stages of close-out, the general contractor and their subcontractors will arrange for in-service training of the maintenance staff on the start-up, operations and maintenance of all major systems and equipment in the building.

Maintenance and housekeeping staff must also review manufacturer's maintenance instructions for all interior finishes, develop appropriate maintenance procedures and begin to stock and store required maintenance supplies.

### Architects/Engineers/Interior Designers



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The professional team has been monitoring the progress of the work through on-going field visits during construction and a continuous dialogue with the contractor and owner's representatives. This gives the professionals a strong understanding of the overall level of completion as the close-out phase begins.

A "second set of eyes" has also been verifying the conformance of the construction with the drawings and specifications. Code mandated third party inspectors and commissioning agents have been observing and testing critical components of the project and verifying compliance in the form of written reports.

Once the project reaches substantial completion based on the observations of the architects, engineers, special inspectors, commissioning agents and owner's representatives, then the close-out phase can begin.

The architects, engineers and interior designers will each walk-through the building and prepare their respective punchlists, noting where work does not fully comply with the drawings/specs or where fairly minor corrective actions must be taken by the contractor to bring the work into compliance.

During close-out, the interior designers are on site for the delivery of furniture to insure the items delivered match those specified, to flag any damaged items and to make sure items are placed in the right locations throughout the building.



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### **Contractor**

We have already touched upon many of the close-out responsibilities of the contractor in reviewing those of other stake holders.

In addition to picking-up Punchlist items and working through any issues raised by agency inspectors, the contractor must deliver a complete and accurate air test and balance report for review and approval by the HVAC engineer and by the health department.

The HVAC system was designed to supply and exhaust air from every room/space in the building in accordance with code mandated air flow rates. For example, air in a physical therapy room must be “changed” six times every hour whereas an administrative office only requires two air changes/hour. An HVAC technician using specialized equipment measures the actual air flowing into and out of the air grilles in every room in the building. This information is then recorded in a written report called a balancing report. The project engineer then reviews the balancing report and notes any air flow deviations of more than 5% from the designed air flow. The HVAC contractor must then revise air flow in the field by adjusting baffles in the ductwork and or adjusting fan speeds until the air flows comply and the balancing report is approved. The health department will not allow the facility to admit residents without an approved balancing report.

Throughout the construction phase, the contractor has been preparing several project manuals for ownership. The first manual contains all warranties and guarantees along with manufacturers cut sheets and operations/maintenance/start-up information on all major systems and equipment.



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The second manual is comprised of manufacturer's spec sheets of all finish materials with maintenance instructions and surface burning characteristics (flame spread and smoke developed ratings). This manual also contains certification letters from the contractor and all major trade subcontractors certifying that their work was installed in accordance with the approved construction drawings/specs and the governing codes. The architect and engineer's certification letters; building agency sign-offs and the approved balancing report are also made part of this manual.

Copies of these manuals are submitted to the health department as part of the pre-opening survey process. The architect will customarily review these manuals for completeness.



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## Pre-Opening Survey



In addition to the physical plant manuals prepared by the contractor, ownership prepares several manuals which include all the items we have already identified such as credentialing, policies/procedures and maintenance contracts plus many more items too numerous to mention here. Copies of all these manuals are sent to the health department for review prior to the scheduled survey date.

On “survey day” the health department usually sends two teams; “a physical plant team” and a “clinical team”. As an architect, my experience has solely been, as you might expect, with the physical plant team.

The physical plant surveyor will usually thumb through the manuals which have been tagged to highlight the location of critical items such as the balancing report, certificate of occupancy, fire marshal sign-offs, etc.

I find it helpful for the architect and engineer to give the surveyor the “cliff notes” on the building; how many stories, what is the structural system, what are the fire protection systems, what are the major elements of the heating, ventilating and cooling systems.

We also present the surveyor with a set of color coded floor plans showing the location of all fire rated and smoke rated partitions in the building. These color drawings and the “cliff notes” will give the surveyor a comfortable understanding of the building before they begin the physical walk-through.

The contractor will usually have the major subcontractor’s on-site to answer any of the surveyor’s questions and in some cases, make minor on-the-spot corrections to field conditions.

## Grand Opening

Congratulations. You passed your pre-opening survey with flying colors! This was no accident. You and your team worked hard for well over a year. If you start early, prepare properly and “do the work”, the survey should be the easy part. So go to the ribbon cutting and enjoy a cocktail. You have earned it.

## Thank You

We wish to sincerely thank all of the talented professionals, contractors, tradesmen, designers, inspectors and vendors who helped us make “The Premier” a reality. I would especially like to thank:

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