



nerej

Special care during construction in senior occupied environments

November 15, 2012 - Construction Design & Engineering

There are a number of challenges when it comes to the renovation of an entire wing within a fully occupied senior community.

How do you completely renovate a space while minimizing the disruption to daily living of both the facility's staff and a mix of elderly and infirm people? Rarely is the work itself to be considered a typical renovation. Demolition, framing, plumbing, electrical, finishes and so on, all have to be completed in the midst of a functioning facility.

To give you an example of construction within an occupied and operational environment, we recently assisted a client who wanted more memory care units to meet increasing demand within their assisted living facility.

The overall project was innovative in its use of existing space. The project plan involved the conversion of 13 existing apartments into a new 11-unit / 15-bed memory care center with a separate secure outdoor garden area. Two apartments were converted into an open kitchen, dining room and living room. There were significant challenges. We had to meet the regulations for a memory care unit in terms of space and usage while maintaining a construction budget that made the project feasible and we had to complete it while the facility was occupied.

As the general contractor, we partnered with our client in the renovation and sought valuable input from the entire project team -owner, architect, engineers, subcontractors and designers. Renovation and construction in an occupied and operational environment is always extremely complicated. We wanted to ensure that our client's memory care center exceeded rigorous state and federal quality standards.

The primary consideration during renovation and construction is always the safety of the senior residents and patients and what you have to do to keep them out of harm's way. Typically, temporary walls are erected when possible as well as fire proof zip walls (plastic walls), cones and yellow caution tape. A "traffic cop" or two (literally, our crew members) stand and direct floor traffic. It's imperative to evaluate high traffic times, such as meal time with the migration to the dining room, as a time when all hall construction must be halted. Tradesmen are prohibited from leaving ladders or tools unattended at any time.

Noisy activities such as trenching or core drilling concrete and shooting fasteners into concrete obviously cannot be done in the evenings. There are also other times during the day that are not ideal for noisy activity, such as during patient medication administration or patient quiet/rest time. Tremendous effort must be made to maintain continuous communication with staff so that disruptions are minimized whenever possible.

It's our belief that the Infection Control Risk Assessment (ICRA) Matrix of Precautions for Construction and Renovation, which was developed primarily for the hospital setting, should be

utilized in the construction and renovation of long-and short-term care and senior care facilities, as they share many similar characteristics as the traditional hospital.

The ICRA Matrix is a multidisciplinary, organizational documented process for construction and renovation that takes into consideration a facility's patient population and program, including the following:

- * Impact of disrupting essential services to patients and employees.
- * Determination of the specific hazards and protection levels for each.
- * Assessment of external as well as internal construction activities.
- * Locations and handling of known hazards.

The matrix looks at the scope of work being done, where in the facility it is being done and clearly defines the precautions to be taken based on the nature of the work to be done. Essentially, it calls for more precautions and better clean up practices depending on what work is being done, where in the facility it is being done and who is affected. By utilizing the ICRA Matrix in long and short term care and senior living environments, we, as the general contractor, can provide maximum protection against infection to sensitive clientele.

Experience and knowledge of sensitive, occupied environments are critical in renovation and construction. The general contractor must work with facility staff to create a plan and a phasing schedule to ensure the project is completed on time and within budget, while also ensuring the safety and health of the facility's population.

Tom Quinlan is the founder of South Coast Improvement Co., Marion, Mass.