



BC Cancer Agency "Centre for the North"

The Realities of Healthcare Retrofits

Tips for putting the patient experience first

No two building retrofits are ever the same. This is particularly true in the healthcare sector where patient comfort, staffing schedules, health and safety standards, and critical equipment needs necessitate a tailored approach to each and every project.

"It's a living environment," says Michael Blackman, Regional Manager with RJC Engineers in Kelowna, B.C. "Whether you're going in to conduct renovations or a replacement of essential medical equipment, you have to do so with an understanding of how that project is going to impact critical operations at every phase."

That understanding begins by collaborating with owners, contractors, and facility stakeholders

to clearly define project expectations. This includes disruptive factors such as contractor schedules, noise mitigation, and even dust control – which in itself is a significant factor in controlling the spread of infection.

"Vibration levels are also something you have to take into account," advises Blackman. "We recently did work very close to a medical operating room that uses lasers during surgery

so there couldn't be vibrations of any kind. We had to coordinate with hospital staff to ensure whatever we were doing nearby wasn't adversely affecting their highly detailed work and then communicate that to the contractor."

Equipment upgrades or replacements can also create unique challenges in a healthcare environment. There's rarely a good time to take a critical medical device offline. Elevator repairs or

upgrades, for example, must be conducted in phases to ensure hospital staff has access to a working elevator in case of a Code Blue (heart attack) or other immediate emergencies.

As for maintaining the ebb and flow of a hospital throughout a typical day, Blackman says, "Wayfinding is an important consideration during construction. Going to the hospital is already a stressful experience; you're in a relatively unfamiliar place and in a heightened emotional state, so if the path to where you need to go for treatment is confusing or disrupted due to ongoing work, that will have a real impact on your wellbeing."

ELEMENTS OF SUCCESS

As challenging as hospital retrofits and renovations are known to be, the technical and logistical hurdles can be minimized. In his experience, Blackman says the following steps will help ensure a smoother process every time:

1. Start with the right team

Working with healthcare providers, engineers and contractors who have experience carrying out sophisticated projects in a healthcare environment and a track record for working in large teams is critical. This is especially important in healthcare facilities where it's common to have several projects occurring at the same time.

2. Get the full perspective

When the right people are involved in the decision-making process (e.g., nursing staff, department reps, owners, contractor team, engineers, etc.) the chances of important "behind-the-scenes" details being forgotten or overlooked or are greatly reduced.

3. Establish and maintain open communication

Keeping a steady flow of dialogue throughout the construction process is integral – and as Blackman points out, this includes communicating with other on-site teams: "We



A look inside Joseph Brandt Hospital after redevelopment and expansion.

had one project where we were working on the elevators while another team was conducting an emergency generator system replacement, so it was essential that we kept talking and coordinated our respective projects."

4. Be flexible

Knowing that issues are likely to arise – and being prepared for them when they do – will prevent unseen problems from crippling the progress of a project. In a healthcare environment, anything can happen. Being open and ready to implement new plans is essential.

THE PATIENT-FIRST APPROACH

Above all else, remember that the best approach is always the one that puts the patient first. How the project affects the individuals confined within the building is central to every step of any retrofit.

"The healthcare landscape is always evolving and there will always be new factors to consider going into a project," says Blackman. "At the end of the day, as long as we're putting the patient experience at the forefront, we're on the right path." ■

Michael Blackman is a Regional Manager with RJC Engineers. Learn more at www.rjc.ca.



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Engineers