



# OPTIMIZE YOUR healthcare facility's maintenance plan

By Henry Jansen

**How do you know if your healthcare facility** is offering the most for your patients, visitors and employees through optimized operational performance? How do you measure the operating performance of your hospital facilities? Are there potential cost savings that are being overlooked? How do you effectively utilize budget dollars? How do you avoid the unexpected? How do you plan for the future?

In today's demanding society, these are questions all healthcare facility operators should be asking themselves. We no longer live in a time when medical care is only a last resort necessity. Of course it is for some but the majority of our population look at healthcare as a way to maximize a healthy lifestyle. People are well educated about medical advancements, technology and the importance of regular medical exams. Just as maintaining a high level of health is one of the most important aspects in many people's lives, maintaining an efficient healthcare facility can be positively linked to this lifestyle.

Healthcare facilities continue to struggle with aging buildings and services, managing technology, shrinking dollars and community pressures to be more efficient. How does a hospital manage in these challenging times?

One of the best ways to manage is to implement a proactive maintenance plan, upfront, at the earliest stage possible. This is integral to stretching and optimizing your operating budget while also taking advantage of technological advancements at the most effective, appropriate time.

All buildings, including healthcare facilities and hospitals, have systems that need maintenance, replacement, repair work and proper management. Effectively managing the requirements of these systems and structures will decide whether you have a profitable operating budget and capital replacement plan or one that eventually cripples the business.

Let's look at a very simple example: automatic doors. Only 10 years ago, automatic doors were commonly only used for main entrance, high traffic areas. They were expensive to install, maintain and operate. Even today,

many medical facilities still only use automatic doors for main entrance areas. However, now with the ever growing concern of easily transmitted viruses and diseases, reducing physical contact with public surfaces has become a growing trend. Hospitals are beginning to install automatic doors everywhere from interior hallways to operating room entrances.

With today's technology, automatic doors are highly efficient. They can even be used to increase the energy efficiency of the building through effective temperature management. However, installing hundreds of automotive doors can be a massive undertaking. How do you know when is the optimal time to proceed with a large scale investment like this?

The key is understanding how you can gain efficiencies and reduce overall expenses before proceeding with a major equipment overhaul. A good starting point, and one of the most important tools for planning maintenance, is a current and up-to-date facility assessment conducted by a licensed professional engineering firm. This benchmarks your systems and sets the groundwork for your future, ongoing maintenance plan.

The first step in this assessment is an inventory, completed by the engineer, of all of the systems in the facility. This allows the engineer to thoroughly understand and document the entire complex including existing major common elements, evaluate their current condition, as well as the quality of installation and estimate the expected remaining useful life of each major component.

After this inspection and subsequent analysis is complete, the data is then compiled and used as a basis for projecting a reserve fund that will be adequate to take care of non-annual maintenance and repair items. The reserve fund will list the facility's items and related recommended maintenance, frequency and cost for the maintenance of each element. A detailed maintenance plan can then be derived and expenses over the next several years can be forecasted.

Careful planning regarding the maintenance of your facility's property and systems is critical to long-term



results. It should come as no surprise that a proactive approach and investing time upfront, before problems arise, can make a positive impact on your bottom line.

Let's go back to the automatic door example for a moment. If an experienced firm was managing the operational and maintenance assets of the facility, they would know exactly how many more years of life the current door systems had to offer in the facility. They could then create an optimal proposal that combined this knowledge with societal trends and available technology to create an installation timeline that doesn't become a cost requirement but instead an efficient upgrade with many benefits. Optimal performing systems can not only save money but can also improve the impression the community has about the facility and thus increase overall traffic. And this of course is critical for successfully run hospitals.

When looking at actual facility systems, here are some very brief examples of critical systems and potential upgrades.

#### **SITE, PARKING FACILITIES AND PAVEMENTS**

There has been a variety of technological advancements in this area from materials that have increased wear lifespan to integrated heating systems that help to manage harsh conditions and snow accumulation, thus reducing overall maintenance costs.

#### **STRUCTURE**

Structure such as foundation soundness, condition of exterior walls, cracking and evidence of moisture penetration can be extremely costly to repair. One of the best management methods is to maintain building structure from the day the structure is built. Proper maintenance of the structural systems can prevent costly and labour intensive repair projects in the latter life of the facility.

#### **ROOFS**

Not only is it important to manage the condition of roofing, flashings and drainage systems, but an effective usage of this space has also become key. With advancements in green roof technology this growing trend could allow the medical facility to engage in overall, proactive healthy-choice lifestyles by promoting environmentally aware projects.

#### **PLUMBING FACILITIES**

Plumbing is one of the easiest areas to implement energy efficient systems. There are hundreds of ways to improve the performance of plumbing systems while reducing the use of water, an important factor in our growing communities.

#### **MECHANICAL AND ELECTRICAL FACILITIES**

Engineers can help ensure that the mechanical systems

# Appearance reflects performance.

being used are the perfect fit for the needs of the buildings as well as the community. This is one of the most important areas where technology plays a key role.

These are some of the main systems that come to mind when talking about healthcare facility improvement. However, appearance also plays a significant role in the success of operating such a facility. Appearance reflects performance. Exterior finishes, signage, therapeutic installations and other common area elements can be inspected by an engineer. Recommendations for improvement or general upkeep can be relied on to help create a well maintained and visually impressive facility. Once again, efficient, cost effective improvement is key.

This type of planning is just as important in small rural hospitals as well as those found in the larger centres. We have all seen a number of small town hospitals close over

the years. Just imagine if we were able to make those buildings and facilities become more efficient through effective maintenance planning. We could reduce costs and raise performance. Maybe even attract more doctors to serve our smaller towns in well-run, high performance facilities.

The bottom line is that effective facility planning can affect multiple tiers of performance. From low-level budget management all the way to positive community presence, this is one sure way to improve the infrastructure of our medical support system. ■

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