

Walk the talk

Making the case for more infrastructure funding

DESPITE LOTS OF TALK about our failing infrastructure and disastrous maintenance backlog, getting money to maintain what we have – let alone build for the future – is still a significant challenge. Outside of facility managers, there is a general lack of understanding of *why* the need for renewal spending is growing so fast – and many facility managers lack effective tools to communicate both the causes and consequences of the funding shortfalls faced by public institutions.

A little history helps to make the case. In 1900, most capital was spent constructing new facilities and relatively little on maintaining them. Post-war (1950s-1960s) spending on new facilities increased significantly, as did spending on maintaining the assets built in the early 1900s (which were near or at the end of their lifespan). Now, very little new construction occurs, but all the post-war assets require significant maintenance spending.

Maintenance spending is not exciting. It is far more exciting, particularly for public officials, to cut ribbons on new buildings. There's little mileage to be gained in headlines like: *Skating Rink Continues to Function!* or, *Road Deterioration Slowed!* So, when asset managers make the case for renewal spending to budget

committees, they need more information – and more compelling presentations – than those proposing new construction.

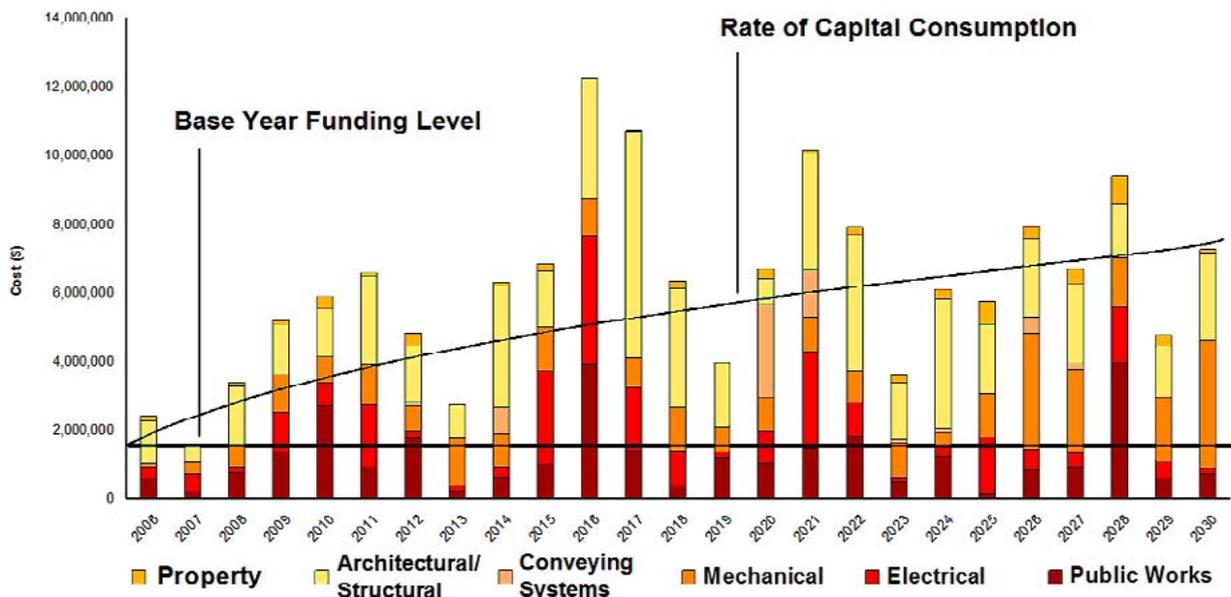
To get people to care, to get precious dollars redirected to mundane renewal tasks, you must truly understand your asset base – what you have; the engineering facts, such as when it was installed and its theoretical life; and replacement costs. Engineering facts are hard to argue against.

Both Canada Post and Keybank, one of America's largest bank-based financial services companies, have embraced this approach.

Canada Post began formally reorganizing its capital renewal spending process in 1998. According to Gerry Leadbetter, manager of Investment Planning and Real Estate, clearly defining and communicating renewal needs on a standardized basis resulted in “a better appreciation from senior management to the overall condition of the portfolio – especially the backlog.”

Ron Keller, senior VP Corporate Real Estate at Keybank, migrated from what he calls “squeaky wheel capital allocation” to a “more common-sense approach. Our capital dollars were spread too thin. At the planning level, we didn't have a good understanding of all the knowledge in the heads of our facility

Figure 1. Capital consumption over a 25-year period



Source: All graphs are based on data compiled by Physical Planning Technologies from several public sector audits.

managers. We needed better information. Now, people can make their case more objectively.”

Credibility is a hard-won virtue. To gain it in the realm of capital planning, you must make predictions, be right – and constantly remind everyone that you were right. In the realm of equipment failure, you don’t have to be perfectly right; that’s impossible. What *is* possible is being able to predict spending vectors 1, 2, 5 or 10 years out – and it is here that you need to gain the greatest credibility. Knowing when your assets are due for replacement, you can begin to plot increased capital renewal needs years in advance. You may not be absolutely correct, but you will be right within 10-20 percent, which will seem devilishly precise to those without your knowledge.

Leadbetter puts it this way: “Now that we’ve implemented this kind of process, the quantification of the numbers gets better through time. Once we identify the need to do something based on generic estimates, we can target our engineering estimates. After the project is complete, we use the actual cost to cast the events back out into the future.”

Hossain Taleban, the facilities manager at one of the largest health research and teaching facilities in Canada, began reengineering his budgetary process in 2001. Looking back, he observes that, “It was our extensive and objective documentation that convinced the senior managers to increase our renewal budget. Using industry-standard measures, we were able to show them that, without increased funding, the facility would be in a critical condition in less than five years.”

As an asset manager, you must communicate clearly to budgeters both what is needed and the consequences of under-funding. Figure 1 shows sample spending needs derived from projected events based on install dates and theoretical lives (by technical category) for a group of assets over the next 25 years. The data represents engineering facts and cannot be easily dismissed. Capital requirements can also be as shown simply as the gap between current spending and future needs. (Figure 2)

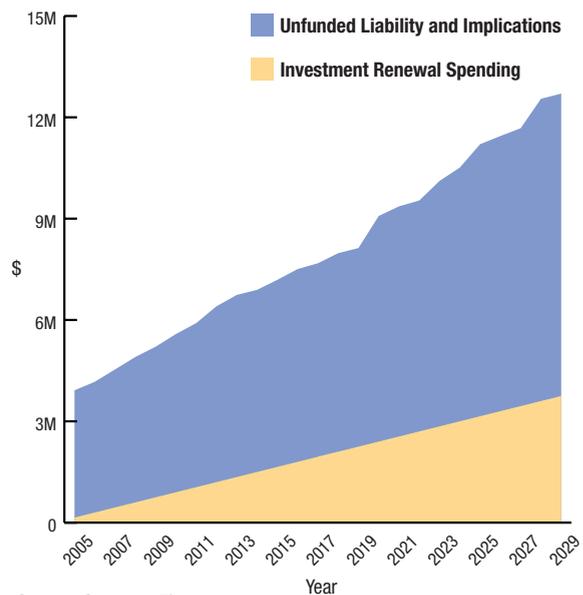
If your audience still does not understand the consequences of keeping funding at current levels, the facility condition index (FCI) is a compelling tool to show the effects of under-funding into the future.

The FCI is the ratio between an asset’s renewal spending requirements and its replacement cost. For instance, a building with a replacement value of \$2M, which requires \$100K of renewal spending in 2006, would have a FCI of 5 percent (100K/2M). If that renewal-spending requirement increases to \$200K in 2007, the FCI would rise to 10 percent (200K/2M).

Using FCI, it is easy to predict the future (Figure 3, page 18), showing how the asset quality will decline catastrophically over the next 20 years. An asset is in very bad shape when, on average, it consumes a third of its replacement value every year in renewal requirements. Would you spend \$8,000 per year over and above gas and oil changes to keep a \$24,000 car running? Not likely!

Convincing someone requires that they sequentially accept each axiom, fact and argument as you make them. They must then, inevitably, accept your conclusion. The following step-by-step approach can help clinch your arguments:

Figure 2. Mapping unfunded liabilities



Source: Same as Figure 1.

- Renewal funding was based on past patterns of asset failure;
- Due to the general aging of an increased number of assets, past predictions cannot be used to predict future renewal requirements;
- Future requirements must be based on the lifespan of existing assets and their components;
- The majority of our assets are reaching the end of their lifespan;
- Therefore, our current and future funding must be increased proportional to the projected failure of our assets.

If you are asked ‘why not defer spending for another few years?’ there are two answers: the FCI argument outlined earlier, and the principle that responsible money managers should spend a dollar now rather than later if the increase in liabilities is *greater* than the money that can be made by investing that dollar. Sequentially, this argument is:

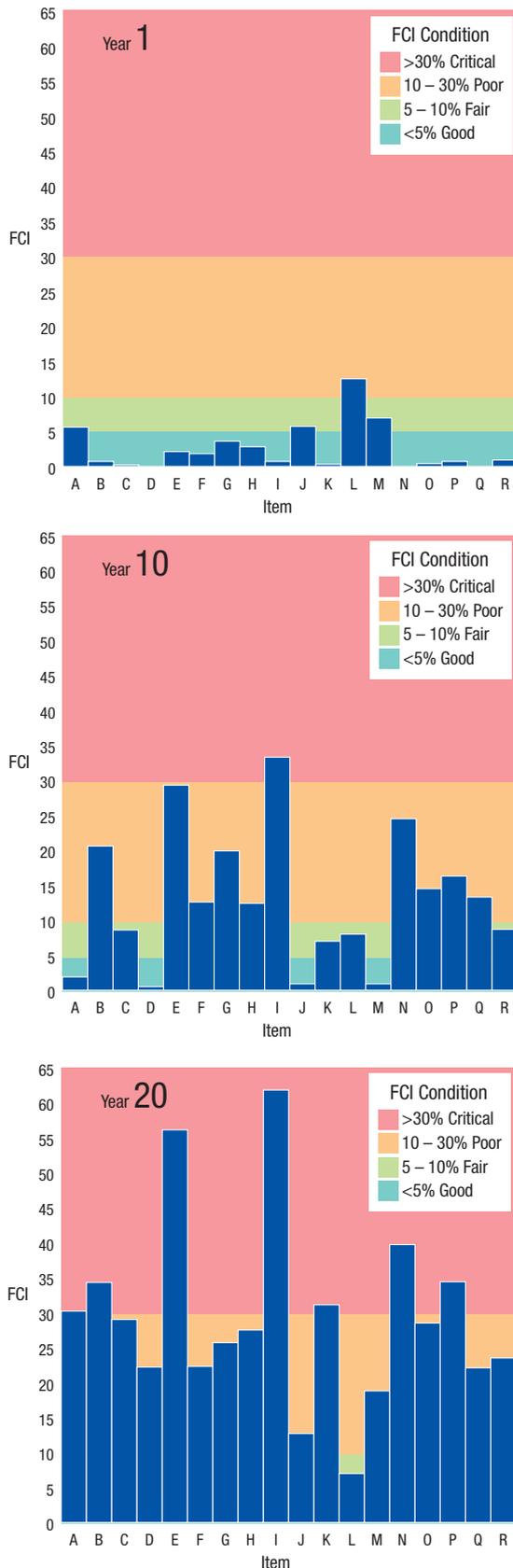
1. If the gain from invested interest is *less* than the loss through future liabilities, the money should be spent now;
2. A reasonable return on investment is 3-5 percent;
3. If the work isn’t done now, the renewal cost backlog will increase by a certain amount within a year – in this example, assume 15 percent; and
4. We are, therefore, making at least 10 percent by spending the money today.

Assuming that your accumulated backlog deterioration is more than a few percent, your case is closed. This argument only fails if another spending requirement will return more.¹

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¹ Typically, this only happens if regulations change and compliance adds new costs. With some exceptions, complying with regulations takes precedence over renewal requirements – unless the two are combined, such as health and safety codes.

Figure 3: Facility condition index (FCI) changes over time.



Source: Same as Figure 1.

Now the only question remaining is ‘how much the funding should be increased?’ Making the case for additional renewal capital requires five main approaches:

1. Educate your audience as to why renewal costs are increasing across the board;
2. Using installation dates and theoretical lives, show how specific renewal requirements will be increasing over the next 5, 10, 20 or more years;
3. Identify the consequences of failing to increase funding;
4. Demonstrate the ROI of spending now versus later; and
5. Give your audience the room to make their own decisions.

That’s the theory; what about real world results? Leadbetter at Canada Post reports a consistent and ongoing renewal budgetary increase of 30-35 percent per year – and the gains are more than financial. He says, “the squeaky wheel no longer gets the grease... our analysis is based on probability and engineering, not on shouting and screaming.”

Taleban reports that after presenting defensible projections of capital renewal requirements, his budget was increased by 2,000 percent in a single year. He also reports a similar increase in the quality of decision making. “Based on implementing this process, the prioritization of the work to be done was clearer. When you have a multi-site organization, moving from a subjective evaluation to an objective measurement makes it easier to work with people because they can see how their needs compete with everyone else’s needs... decisions are less personal.”

Keller says he tripled his renewal funding in a single year. He also found that “we can now look at our portfolio as a whole, not just as a scattered series of problems. We can decide when it’s better to relocate, rather than just keep pumping money into an asset.” He also stresses, “It’s important to remember that renewal funding decisions are never made on the data alone. This process is a decision support tool – not a decision maker.”

As a professional, all you can do is make the best possible case – communicate facts and consequences. Sooner or later, the money will be made available. ~~~

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