Staying a Step Ahead:
How Facilities Leaders Can Use Data to Make the Case for Facilities Investment
Out of economic necessity, campus facility managers have had to defer maintenance on many buildings and building systems. Although the year-over-year backlog of renovations and fixes has grown, the available capital has not. But you can only postpone the inevitable for so long.

Without regular planned maintenance, facilities have deteriorated—some to the point of dilapidation. Facilities managers, faced with costly repairs, are forced to triage, prioritizing one crisis over another. But as they struggle to keep campus buildings operational, they lack the tools to effectively communicate the severity of the situation to those in the best position to help.

With the aid of independent data and comparative metrics and analysis, facilities managers can develop well-constructed plans to revive campus buildings, then effectively explain to financial leaders what needs to be done, why and when.

This guide helps facilities managers make a compelling argument for the need to commit capital and shift the tide of deferral and deterioration of aging buildings on their campus.
Higher education campuses in the US and Canada went through two major spikes in construction in the past century: the first in the 1960s and 70s to accommodate the post-WWII baby boom generation attending colleges and universities, and the second during the construction boom of the late 1990s and early 2000s. Many of those buildings and systems have not had a major renovation since they were first built.

Considering that many systems require renewal after 25 and 50 years, educational facilities across the country are in obvious need of attention. Unfortunately, many institutions are not investing the necessary capital for the upkeep of facilities. The result is substantial increase in facilities backlogs—or the postponing of maintenance to save costs or meet budget funding levels.

Universities and colleges do dedicate a fair amount of funding to physical assets, but recently much has gone to high-profile new construction, often for the sciences. But even newer buildings carry an annual operating cost, and these costs draw from the limited capital available for facilities.

**Competing for Available Resources**

Higher education financial leaders are fairly familiar with the recurring nature of capital planning and renewal. But facilities management and renewal compete for funding resources that have not fully rebounded from the
economic downturn of 2007–09. Often, the lack of funding that affects facilities is a result of competition with faculty compensation and financial aid, which are driving forces that affect enrollment, campus image and more. Unfortunately, this lack of funding has made it difficult for facilities managers to make valuable upgrades and schedule preventive maintenance, thus furthering the issue of aging infrastructure.

Enrollment trends are also causing competition on campuses. Declining or stagnant numbers of high school graduates are affecting college and university enrollments in most parts of the country. Campuses that have grown space faster than enrollment now have more space to maintain and fewer students to fill it.

Conversely, institutions in states like Texas and Utah face unprecedented numbers of new students, many of them first generation college attendees. They require new capital funding to relieve overcrowding.

Many people overlook the effect enrollment can have on the allocation of funds for managing campus facilities. A college that serves 1,000 students will need to provide the same amenities to attract students and faculty as a university of more than 10,000 students. This adversely affects smaller institutions which often have higher tuition discounting and smaller alumni donor bases.
The Problem of Deferred Maintenance

The inability to upgrade or regularly service HVAC, roofing or electrical equipment, for example, increases the likelihood that problems will get worse with time. Just about every campus in the U.S. and Canada suffers from a backlog of deferred maintenance, with some institutions far worse off than others.

The real problem of deferred maintenance is that deferred costs actually lead to higher costs. That is because less preventive maintenance results in a shorter lifespan for facilities' systems and more emergency repairs, which are far more costly than the planned repair.

While today’s facilities managers face a growing number of challenges in solving the issue of deferred maintenance, communication and useful metrics will play key roles in mitigating the problem.

Much of the initial legwork will come in the form of prioritizing projects to create momentum and forward movement, which is often lacking on college and university campuses throughout North America. Facilities managers must take the lead on clearly presenting the problem and effectively communicating it to board members, trustees and decision makers.

The 3 Fs of Higher Education

The three “Fs” refer to financial aid, faculty and facilities—the three largest expenditures for colleges and universities. Financial aid is a ubiquitous expenditure borne by all educational institutions, as is the cost of retaining quality faculty. Both financial aid and faculty salaries account for a large percentage of a campus budget. Although equally important, the third “F”—facilities—is often left grossly underfunded.
CHAPTER 2

The Role of the Facilities Manager

While it’s difficult to predict with certainty which direction the economy will move and how colleges and universities will be affected, the three “F’s” (financial aid, faculty salaries, and facilities) will continue to compete for finite funding.

Facilities managers can and should work toward making a stronger case for addressing the repair backlog suffered by campuses throughout North America, which continues to grow as time passes.

**Doing More with Less**

The competition for resources is a reality that facilities managers must understand. If they know *why* facilities tend to take a backseat, they can develop a plan for turning things around.

There’s no getting around the fact that campus facilities managers are faced with a daunting task of articulating the true need for the long underfunded maintenance tasks to be performed. The following are among the more common roadblocks they face:

- **Maintenance backlog.** It is no surprise that lifecycle maintenance and renewal often fall short when compared to trying to bring students, top faculty and renown to a campus. Year after year, maintenance budgets fall short of the capital investment required and the backlog continues to grow.
• **Poor communication of the real problem:** Communicating clearly what is needed and why can be one of the most difficult jobs for a modern facilities manager. Key decision makers, such as trustees and board members, have limited time to attend to the myriad campus-wide requirements. Many facilities managers lack the tools to explain succinctly the complexities of plant management or the importance of capital investment.

• **Lack of metrics and data:** If facilities managers are to make the case for greater investments in the operations and maintenance of campus buildings and systems, they need hard data that underscores the critical need. Financial leaders have access to industry-wide comparatives and the knowledge brought by “big data.” More often than not, facilities professional do not have access to the data and clear metrics so important for making the case for change.

**Time to Make a Change**

While facilities managers have their work cut out for them, they shouldn't be deterred from doing everything possible to address the growing backlog in building maintenance. Their success in that endeavor depends on a combination and balance of several elements, including:

- the availability of relevant data,
- good communication skills, and
- the ability to provide a thoughtful situational assessment.

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It all starts with an initial commitment to improve the existing infrastructure of campus buildings.
The job of a facilities manager is more difficult and complex than ever before. A number of challenges exist, but so too do the solutions. By methodically approaching the issue, facilities managers can work toward reaching adequate solutions for improving campus facilities.

Here are just a handful of ways facilities managers can turn the tide and start to chip away at the backlog in campus building maintenance projects.

**Take a hard look at the current situation.** When the scope of the problem is as large as it is on many campuses, it can be difficult to see the full, long-term effect of deferral. It is a question of seeing the forest for the trees. In addition, most facilities managers are experts when it comes to their campus, but have no comparative data from other campuses. Therefore, the first step is to get a complete overview of the current situation, assessing capital, space and operational need.

**Gather the right metrics and have them analyzed.** How can facilities leaders more effectively make the case for facilities improvement? It comes down using compelling data that can be used to better articulate the need.
To accomplish this, identify metrics that highlight the current maintenance situation, and how the campus compares with other similarly sized institutions. With validated data, facilities managers have a much better story to tell when it comes time to present their budget requests. (More on this in Chapter 3)

- **Define goals and set priorities.** No matter how compelling the data, funding for facilities maintenance and renovation will never fully address the need. That means not all projects can be addressed right off. Coming up with a plan that highlights specific goals and priorities, and ties to institutional mission, will allow facilities managers to position themselves as thought leaders and is one of the first steps towards addressing the problem of backlogged maintenance. (More on this in Chapter 4)

- **Communicate and engage with decision makers.** The key to success is to effectively explain to financial leaders what needs to be done, why and when in an understandable context. It is more a task of translation than communication. To learn how to best communicate with board members and trustees, start with the right vocabulary, and identify and address their concerns. (More on this in Chapter 5)
Facilities managers face a real challenge when articulating the issue of deferred maintenance. It’s not going to get any easier as the competition for funds becomes a growing concern for U.S. and Canadian colleges and universities. But progress can be made.

In a growing effort to make their campuses stand out, many colleges and universities have been placing a great deal of focus on new construction over the course of the past decade. Educational campuses often try to outdo one another by adding new, state-of-the-art housing and classroom facilities. While new construction may make for good public and alumni relations, it overshadows the growing backlog of maintenance that plagues these institutions.

A balance must be established between the desire for new space and the need to invest in older spaces and infrastructure.

**The Need for Qualified Facilities Data**

Colleges and universities often go to great lengths to position themselves effectively and develop their campuses in ways to keep enrollment high. New, cutting-edge facilities and housing attract students and help institutions stand out from the competition. This focus can inadvertently make it more difficult for facilities managers to articulate their immediate and ongoing challenges and
campus planning needs. One of the most significant challenges to address is the true cost of unbalanced spending on new construction: the unabated growth of deferred maintenance backlog. While this growth appears bearable in the short-term, it’s completely unsustainable over time. This is why collecting qualified data can help.

Data can provide a complete picture of the deferred maintenance problem or quantify current performance. During collection, managers can identify areas in need of immediate attention and refurbishment (the metaphorical roof is caving in), those that can be deferred a bit longer, and those that can go several years with just regular operational maintenance. Data collection can also validate the concerns of facilities managers.

There are also two other key reasons for collecting data. First, it is an opportunity to benchmark the campus’ operational effectiveness against other educational institutions. Second, it helps facilities managers effectively communicate with campus leaders and decision makers through clear, concise metrics.
The Importance of Third-Party Analysis

Although facilities managers are well aware of the growing backlog of existing building maintenance requirements on their campuses, many need perspective on how their campuses compare with others. Operational siloes make it difficult to set actual progress into motion, and even more difficult to articulate critical needs to key decision makers.

Enter third-party analysis. Collecting qualified facilities data and having it analyzed by a knowledgeable third-party is the missing link that many facilities managers are looking for and can have a huge impact on the ability to communicate the issue to board members and trustees. It also helps paint a clear picture for all parties, aiding in the development of a plan for addressing maintenance needs that have been put on the back burner for too long.

On top of their already full workloads, many facilities managers have master planning, sustainability and space issues being added to their plate. Analyzing data with the help of a third-party who communicates the key findings can help lighten the load. It’s also the most effective route toward addressing a growing backlog.
In a perfect world, campuses could manage facilities needs by appropriately funding annual stewardship and addressing backlog to make daily services more effective. But that is unrealistic. In today’s financial climate, facilities need will always outpace available funding.

In terms of righting the trend on deferred maintenance, facilities managers need to pay particular attention to the “catch up” costs as well as the “keep up” costs:

- **Keep up costs** are the annual investments needed to ensure buildings will properly perform and reach their useful life.

- **Catch up costs** are the funds needed to combat the accumulation of repair and modernization needs.

Separating these issues is important since not all buildings are equal. Some have more immediate need for refurbishment, others can continue to operate as they are for several more years with moderate upkeep. Still others are ripe for tear down to make way for new construction and expansion.
Facilities managers may want to look to their building inventory and begin to categorize each building according to three factors:

- Condition
- Function
- Impact of improvements (How does improving this building affect mission or financial performance?).

By grouping buildings, facilities managers can assess risks and identify the best opportunities for focusing investment. They can then develop building portfolios that reflect the campus mission and strategic direction. This guides the investment across different portfolios in a multi-year strategy.

Focus first on the projects that, if not addressed, will displace academic programs. Then turn to the systems and maintenance projects that are past due. This may include scheduled maintenance that has been deferred year after year due to limited funding.
Once the most pressing projects are planned and executed in the multi-year plan, and as resources allow, it is time to turn attention to the systems and facilities that are expected to hit their end-of-life within the next 10 years.

Thankfully, time is on your side when it comes to facilities management and maintenance. Steady investment in the right projects over time can stabilize and even reduce the deferred maintenance burden. But there is a cost of waiting. If you don’t act, the percentage of facilities and projects in the high-risk reliability segment will increase.

The key is to start somewhere.

And once you start acting, measure results. Success breeds success.
Communication is perhaps the single most important skill a person can hone. This is true for everyone who works in higher education, but it is especially true for facilities managers trying to convey the need to move the needle on deferred maintenance.

Fortunately, facilities managers can do quite a bit to increase their chances of getting the point across when communicating with board members, trustees and other key decision makers, and it all starts with developing an effective shared vocabulary.

**Why Vocabulary Matters**

Language can be highly influential in any professional, personal or educational setting. More often than not, the goal of communication is to get on the same level as the other party, which is where the importance of vocabulary comes into play.

Facilities managers often rely too heavily on technical terms rather than recognize the needs and concerns of their audience, whether the CFO, president or board of trustees.
Developing a shared vocabulary can be a challenge, but it can also play a crucial role in forward motion. Here are a few tips for enhancing communication and creating a shared vocabulary with which all parties can feel comfortable:

• **Outline a clear set of needs.** Facilities managers must gain a thorough understanding of their building maintenance needs, then outline them in a clear, concise manner. This can be thought of as the “key takeaways” part of the conversation, which will give board members and trustees a solid base of understanding when considering the situation being presented.

• **Drop the technical terms.** A discussion around building maintenance and institutional backlog can quickly turn technical. In some cases, this can be an effective route towards progress and forward movement. Typically, though, overwhelming key decision makers with technical terms will do nothing but cause confusion. Facilities managers can get a lot of mileage out of simplifying terms and sticking to concepts that non-facilities experts can understand without the need for lengthy explanations.

• **Consider broader goals.** What is it that board members and trustees are most concerned about when it comes to improving college and university campuses? How will they and the organization benefit from finally addressing the maintenance backlog? Thoughtfully considering these and other questions in advance can help enhance communication and create a more level playing field between facilities managers and decision makers.

**Emphasizing the Issue**
Clearly, vocabulary plays a major role in communication surrounding the topic of deferred maintenance. However, it's important not to confuse developing a shared vocabulary with dumbing down the issues.
Present the case as a growing problem that requires immediate intervention and sustained consideration over time. By utilizing the right language and addressing the concerns of their audiences, facilities managers can find success in communicating the implications of the ever-increasing maintenance backlog.

Be sure your audience, whether trustees, staff, faculty, or students, understands the need and the strategy for overcoming that need. Emphasize that it is a campus-wide effort, and that results and return on investment will accumulate over time.
Conclusion

The need for addressing the current backlog of maintenance on educational campuses throughout America is evident. But the problem can be overwhelming and hard to communicate. By developing a plan that incorporates third-party-verified data and emphasizing an approachable vocabulary, however, progress can be made.

Facilities managers have one more responsibility. They must look to their own operations. Facilities are almost universally seen as inefficient. If you want buy-in from key stakeholders, you must change that perception. Focus on improving efficiency and being proactive (rather than reactive). Then have metrics at the ready to show you are doing the most with the resources you have been given. Otherwise your plea for more funding won't be taken seriously.
How Sightlines Can Help
Sightlines leverages independent analysis and rigorous benchmarking to bridge the gap between physical and financial asset strategy for educational institutions throughout North America.

Our proprietary process ROPA+ tracks performance over time, allowing higher education institutions to make more informed policy and strategic decisions based on consistent and accurate empirical evidence that is analyzed and refreshed annually.

Member campuses have the ability to customize benchmarks from any field in our extensive database of facilities metrics, with data drawn from over 450 institutions, representing more than 1 billion gross square feet.

Contact us to find out how ROPA+ can help you create a sound facilities strategy.

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