Obtaining Facility Condition Assessment Data for Strategic Capital Planning

A Step-by-Step Approach

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Executive Summary

The goal of strategic facilities capital planning is to prepare accurate budgets and obtain the necessary funding for the most important projects within a facility portfolio. Priorities vary from organization to organization and are dependent on numerous variables such as mission, need, function, time and budget restrictions. A successful facilities capital planning program in which objective priorities can be set requires an understanding of current facility conditions based on accurate data. This eBook describes various options for obtaining the necessary facility condition data.

Current, accurate facility condition data forms the basis of a facilities capital planning program.

Efficiently obtaining facility condition data requires a strategy that answers the following questions:

- What organizational goals must be supported?
- How much detail is needed?
- How is data obtained?
- Where should data be stored?
- When should data be gathered?
- What is the best way to share data?

What Organizational Goals Must Be Supported?

Many organizational and business goals may be directly or indirectly tied to the health of a facility portfolio or to decisions that are made in regards to facilities. **For example, organizational objectives could include:**

- **Expanding** customer services
- **Allocating space** for a new population of building users
- **Reporting on the facilities' ability** to support mission readiness
- **Integrating sustainability initiatives** into the facilities capital plan

It's important to first determine what these objectives are before moving forward with any data collection strategy, because these goals will dictate the type and detail of analysis and reporting and can also impact how data is gathered, how frequently it is gathered and where it is stored.

Real estate is the second largest expense for most companies. Managing all the information related to those facilities and their related systems can be an ongoing challenge.

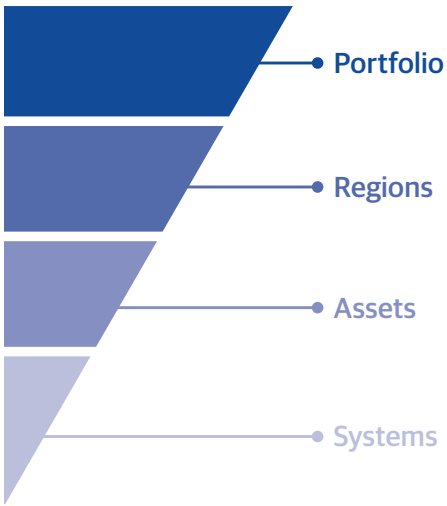
Even if it's available, current data about building value, condition, age and function, as well as maintenance and renewal needs, is often scattered across multiple locations and systems, creating isolated islands of information.

As a result, facilities professionals often have limited insight into operational issues that can significantly impact planning. Facility directors may be uncertain about how recently-completed projects impact their annual funding requirements. At the same time, executives don't have a clear picture of how spending on facilities can support strategic organizational goals and objectives.

How Much Detail is Needed?

Once organizational objectives are defined, the next step is to determine the level of detail needed to satisfy those needs. For instance, the level of detail needed to obtain insight into the total liability of the entire portfolio is higher than the level of detail needed to simply identify systems that are beyond their useful life. If deferred maintenance projects are the priority, then the level of detail is different yet again. To define a data collection strategy, it is useful to think of the real estate portfolio and assets in a hierarchical structure. This helps determine how best to collect and organize data.

The following is an example of such a hierarchy:



Groupings of country, division, line of business, etc.

Groups of assets in one physical or logical area

A physical structure (building or property) serving organizational needs

Components within individual assets

Within each level, there is the potential to collect data and identify improvement opportunities such as deferred maintenance, urgent needs that may impact safety, code issues, operational problems and renewals or replacements.

Types of Information Gathered

- Location
- Building type
- Square footage
- Functional use such as school or office building
- Number of systems in each building
- Type of systems such as HVAC, roofing or flooring
- System age
- Improvement needs
- Recommended actions
- Costs
- Linear asset details
- Energy usage

How is Data Obtained?

Before setting out to obtain data about facility conditions, it is vital to first understand the overall objectives, along with the level of required data and available resources. Once the goals are understood, there are a variety of data collection methods that can be chosen to best suit the needs of the organization.

- **The first method utilizes building models** developed by industry experts to determine the typical condition and needs of a building with a specific age and use. Either statistical modeling or building information modeling (BIM) can be used to determine the condition of an asset without having to physically walk through the building. It provides a calculated estimate that can reveal the potential needs of a building or portfolio. Modeling is less accurate, but can provide a high-level view that may be sufficient for some situations.

- **Another approach to gathering facility condition data is through guided self-assessments.** An organization may have existing staff or partners who can use a consistent survey-driven process to assess the entire portfolio, selected buildings or specific systems, depending on the objectives. Self-assessment is a cost-effective way to baseline facility condition, quickly identify trouble areas, prioritize projects and keep data up-to-date. Using mobile survey tools through your mobile devices are an optimal method for facility staff to collect data. A mobile survey can be utilized by nonprofessionals and experts alike, with built-in logic and business rules, facility and reference data, building templates, photos and more to guide the user through the assessment process, automatically creating maintenance requirements and costs from data entered. Mobile tablets can be used in place of or in conjunction with paper-based surveys. Mobile surveys reduce manual data entry tasks, reduce the risk of errors and significantly increase efficiency.

- **A Systems Lifecycle Assessment (SLA),** conducted by qualified professionals, is another option. A lifecycle assessment is designed to provide facilities managers with a quick and cost-effective estimate of the major system capital renewal events for assets in their portfolio. With a lifecycle assessment, all the major component systems in a building are evaluated individually for their age and condition. The aggregated results enable a data-driven understanding of building condition, system replacement timing and capital expenditure needs over a given period of time.

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Organizations may also select a comprehensive Facility Condition Assessment (FCA). FCAs are generally conducted with walk-through inspections by qualified mechanical, electrical and architectural professionals. These teams survey the buildings, systems and infrastructure assets in detail using a consistent best-practice methodology, visualizing and taking photos rather than disassembling equipment in order to collect detailed and objective data on facility condition and deficiencies. It's important to ensure that the firm gathering the data does not have a stake in performing the resultant remediation work, as this could introduce bias and lead to more subjective findings. Building upon a lifecycle assessment, the FCA can evaluate general compliance to codes and standards, identify opportunities for repairs versus replacement and help prioritize upgrades to improve building integrity. Each of these methods leverages a variety of resources, both in-house and from third-party firms. As expected, the associated price of the approach rises with the level of accuracy required. Modeling is generally the least expensive option, but the results will not be as accurate as having trained experts physically examine the facilities. Crucially, these approaches are not mutually exclusive. Most organizations deploy a mix of approaches to address their specific data accuracy requirements.

> Using data gathered from facility condition assessments, the Facility Condition Index (FCI) is calculated automatically in VFA.facility.

Where Should the Data be Stored?

Spreadsheets provide basic structure as well as some data analysis capabilities. However, without key facility management features, including built-in cost estimation based on industry data, objective prioritization of projects, centralized, accessible data storage and the ability to scale, the limited nature of spreadsheets falls short. Ideally, facility condition data should be stored in a central database. Accessibility is critical, and a secure cloud-based application is optimal. It's important to have good business rules defined for the data, including incoming data sources, how and when data can be transferred, how it is stored, what the data links to, who has permission to edit which fields and more, depending on business needs.

When Should the Data be Gathered?

The final step is to determine the frequency with which data should be captured. More frequent assessments provide more accurate data for potentially costly investment decisions. Best practices involve developing and maintaining a program for ongoing data collection in order to develop accurate budgets that reflect current priorities. Organizations should implement processes to ensure that data is continually maintained.

What is the Best Way to Share Data?

Once accurate data about facility conditions is collected, it shouldn't just be shelved until the next review cycle. All facilities stakeholders, from maintenance staff to high-level stewards, have important roles to play in understanding conditions and making decisions that align with strategic goals. Each will have a preferred way to receive this data, whether it be formal reports, ad hoc queries, web portals or data browsers. Organizations must take these ongoing visibility needs into account when planning how to best obtain facility condition data.

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About Gordian

Gordian is the world's leading provider of facility and construction cost data, software and services for all phases of the building lifecycle. A pioneer of Job Order Contracting (JOC), Gordian's offerings also include our proprietary RSMeans data and Facility Intelligence solutions. From planning to design, procurement, construction and operations, Gordian's solutions help clients maximize efficiency, optimize cost savings and increase building quality.

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