

# USING TECHNOLOGY



## *To Help Manage Your Roofing Assets*

*by Steven James*

Remember the saying “out of sight, out of mind?” Unfortunately, that adage describes an all-too-common scenario for many roofs. Sure, at the beginning the roof is the focus of a lot of attention. Owners and design teams pore over roofing specifications and warranties, trying to determine which roofing products will provide the best value. Roofing contractors are selected with great care and research, so that only the most qualified team is hired. The roof is genuinely valued for its role in safeguarding the building and its occupants and contents.

Now, two decades and three facility managers later, the roof is being ignored. There are no scheduled inspections, maintenance, or system upgrades to proactively avoid costly leaks, and the roof finds itself consistently on the bottom of the budget priority list. Only a leak will get the roof noticed, and even then the response may be delayed as the current facility manager scurries to find information about the roofing system and material specifications, and determine if the roof warranty is still valid. In the meantime, water is destroying expensive equipment, building occupants are inconvenienced and may even need to be moved, and the roof is subjected to only negative attention.



### How Asset Management Can Avoid These Problems

Most roofing consultants, professional roofing companies, and industry experts agree that many of these problems could be avoided with a proactive roofing asset management program. So why don't building owners and facility managers implement such a program?

One reason might be that roofs are easy to ignore and difficult to access. In addition, since roofs are expected to last for 10 – 15 years, it can be tempting for the facility manager to postpone repairs and maintenance on the assumption that he/she won't be around to suffer the consequences. As a result, the roof may need to be replaced after only 7–10 years, and may require structural building repairs that can cost hundreds of thousands of dollars.

Companies that do decide to put an asset management program into practice may find it overwhelming to handle all the roofing details, specifications, plans, and warranties. If there is no alternative, facility managers may have to store this information in filing cabinets at various

locations, where it may never be seen again. Some companies try to address this problem by designing software to automate this process, but in most cases that software program isn't compatible with the other databases used by the company to gather and store facility information. This can make it difficult or even impossible to share data throughout the company and keep the roofing information up-to-date.

### Asset Management Software to the Rescue

Fortunately, there is something facility managers and building owners can use to gather, store, and manage all the information critical to a roof asset management program: asset management software. Established asset management software programs have been available for more than five years, and often have roofing management formats that allow organizations to distribute data via e-mail, intranets and the Web.

Since asset management software can differ in terms of features and performance, it is important to consider the following when evaluating a program:

#### Software Features

The software is a critical component of an asset management program because it manages the information and documentation for the buildings. If using software that is not specifically designed for asset management, make sure it uses a standard format for managing, collecting and documenting roof data, to guard against other users changing formats or data fields. This will make it much easier to share information, even if that data was consolidated manually.

Instead of developing a special software program from scratch, companies can also consider software from external sources that has been designed specifically for roofing asset management. These programs often have more features and capabilities than general spreadsheet applications or relational databases, and

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thus, can usually allow users to attach external files, integrate digital pictures and CAD drawings, and use report-generating features designed specifically for roof asset management. Some software programs are now making it possible to use an (ASP) Web access program that can be shared or paired with software running on individual PCs or a local area network. While roofing-specific programs might cost more than creating something in-house, it usually amounts to only a small percentage of the roofing budget.

#### Reporting Features

A report is effective only if it conveys information that is understood by the readers of the document – an important thing to keep in mind when looking at different reporting capabilities. For instance, a roofing professional reporting on the results of a roofing survey might want to express the findings in a way that presents the condition of each roofing section, how the roof was installed, how it should be repaired, and make recommendations for items that should be purchased to extend the life of the roof. Being able to illustrate items in a way that is understandable by non-technical managers can help companies make more informed roofing decisions.

Some tools that can aid in making a report effective include condition reports for a specific roof section and inventory status reports to help with budget planning.



This asset management software program provides a summary that makes it easy for the building owner to keep track of a roof's condition and its repair history.

Some programs also have capabilities that allow users to produce financial forecasts, mark problems on CAD drawings, and link to digital pictures. Find out if reports can be distributed via e-mail as well as printed as full-color documents.

#### Hardware Factors

Finally, determine what kinds of hardware are compatible with the asset management software. Some asset management programs even allow for pen-based data entry, which can streamline the process of collecting information when conducting roof inspections or documenting roof repairs.

#### Making the Program Work

Once the roof asset management program objectives have been defined and the software has been obtained, the next step is to implement the program. If there are many buildings involved, gathering and inputting all the information on these facilities may seem like a daunting job. One way to make the job more manageable is by starting with facilities that already have a history of consistent roof problems and documenting the problem areas. Also consider buildings where a

leaky or failing roof can have catastrophic consequences on the building's daily operations. Some asset management programs have a condition index that can help building owners designate maintenance resources over a period of time by considering factors such as the type of roofing, life expectancy, current condition, and facility priorities.

As the asset management program data is collected, the data voids will soon become apparent, as items such as missing warranties and roofs without any written histories begin to surface. To avoid these gaps in the future, establish a standard process for collecting and storing information for the files. One requirement might be that all repairs are entered in a report format and accompanied by photos and stored in a centralized file. When a building is commissioned, ask that electronic documents from the project's contractors be provided under close-out procedures found in CSI Master Format Division specifications 01810. Specific roofing electronic information such as warranties and as-built roofing drawings should be supplied under the Division 7 roofing specification, section one, "quality assurance."

#### Keeping your Sights on the Roof

By using sound asset management programs to keep their sights on the roof, building owners and facility managers can avoid the potentially high cost of ignoring their roofs. Instead, they can use the program to efficiently and effectively gather and distribute information that will help them make educated decisions regarding roof maintenance and repair, and also generate roof histories for future managers. This foresightedness will help them reduce expenses by protecting one of the company's biggest assets.▲

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