

P R O F E S S I O N A L

RETAIL STORE

M A I N T E N A N C E[®]

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A TOP-DOWN APPROACH TO GOING GREEN

How to get green initiatives off the ground and onto the roof. | **Steve Koneval**

With global warming making headlines, and high energy costs straining budgets, retailers are revisiting both their environmental responsibility and energy management strategies. And there's no better way to accelerate a green initiative than to start at the top: the roof.

Without exhibiting any obvious indications, roofs can harbor serious system damage as a result of water, wind, birds, insects or physical damage. Climate-controlled air escapes, outside air seeps in, and energy costs creep up — all under the radar.

By the time problems become obvious (such as a leak, visible opening or failure), the repair can be costly and time consuming. It's not uncommon for entire systems to require replacement many years ahead of schedule.

These problems can be avoided through a comprehensive roof management program. Better still, a roof management program can "green" a company's retail footprint and consumer image, while paying for itself through energy, repair and replacement savings.

That's the good news. The bad news is, many contractors claim to provide "roof management" programs that are, in truth, reactive service. Understanding the gap between the two can mean the difference between going green or spending green.

Roof management goes beyond simply issuing an open-ended purchase order that establishes a contractor as the go-to

party for repairing leaks. Rather, it's the planned, budgeted, proactive means of extending the roof's life.

By adopting a management posture as opposed to a reactive service posture, retailers will control their roofing budget in a proactive, organized, precise fashion, instead of a reactive, emergency fashion. By avoiding problems up front, they can cut repair costs, save energy, reduce landfill contribution and qualify for energy rebates.

A STUDY IN PERFORMANCE

One of the first companies to embrace this distinction was Embarq Corporation (formerly Sprint-Nextel). Nationwide, a large percentage of Embarq's 2,100 facilities were at risk for network downtime as a result of equipment damaged from leaking roofs.

At first, Embarq hired a service provider to simply repair the leaks. Then, facing rising energy and operational costs, the company signed up for a complete roof management program, which included preventive maintenance for 1,900 buildings. The goal was a 40% cost savings.

Flipped from a reactive to proactive mode, technicians fanned out across the country, and evaluated the condition of 1,900 structures. The technicians' findings were stored in a central database, and used to develop a plan for repairs, upgrades and future inspections.

With a goal of 40% ROI, Embarq expanded the relationship in 2007 to cover

all 2,100 locations in 18 states. The return is not exceptional; it's expected. Indeed, studies by the American Society of Testing Materials find that a properly implemented roof management program will save 40% of all roof-related expenditures.

Savings isn't the only benefit. The roof management program is helping Embarq meet its environmental responsibility goals in several ways. By increasing the resiliency of its 2,100 roofs, Embarq has doubled their roof life expectancy.

This action cuts construction-related waste, which slows the growth of landfills. Moreover, proactively managed roofs lower Embarq's energy consumption and costs by minimizing air leaks that allow drafts, or conditioned air to escape.

Embarq's roof management program also uses Energy Star-approved materials and designs for building or renovation. The designs increase R-values, which helps the company qualify for energy rebates. And recycled or renewable plant oil polymer products reduce petroleum usage for insulation, adhesives and sealants, greening the company's roofing projects.

Today, Embarq avoids downtime and upholds its high customer service levels with confidence, thanks to a roofing infrastructure that no longer threatens its network equipment.

ROOF MANAGEMENT BASICS

This is not an isolated case. Any retailer can expect to reap similar benefits, provided it partners with a roof management

company that can design and implement a proactive maintenance plan that identifies and repairs problems while they're minor and inexpensive to correct.

Here's what to source in a roof maintenance plan. It begins with preliminary evaluations. Most retailers don't have a comprehensive roof history on file. It's crucial that the roof management plan include a detailed preliminary evaluation to identify and catalog existing roof problems.

Look for a contractor that uses advanced technology to gain the highest level of insight into roofs' conditions. For example, some companies conduct infrared aerial fly-bys with infrared (IR) cameras that detect heat loss from 3,000 feet.

This approach finds leaks undetectable by other methods, when they're least costly to repair, and long before a roof replacement would be required. This technique alone can save a tremendous amount of time and money for a retail chain.

Sophisticated roof management contractors will also electronically input data as it's measured, to produce an accurate, well organized assessment. Digital cameras will visually record roofs' conditions in client databases.

The preliminary data will then be used to build a "story" of roofs' conditions and needs, an action plan and a budget. This initial information becomes the baseline against which the contractor's performance and maintenance goals are measured.

The action plan should include preventative maintenance and upgrade repairs completed every 6 months, the timeline necessary to keep roofs in peak condition. It identifies common but often-overlooked issues (such as clogged drainage openings or loose flashing screws) before they become bigger problems.

Routine maintenance also keeps retailers compliant with manufacturers' roof warranties and building insurance requirements, both of which require credentialed professionals to maintain the roof system — typically twice a year, minimum.

Some contractors also provide condition reports, which allow retailers to view roofing history, repairs, expenditures, planned upgrades, and warranty and insurance stipulations via a secure Web site. This is crucial for monitoring how well (or poorly) the roof management company is executing on its plan.

TAKING IT TO A HIGHER LEVEL

While these attributes form the backbone an effective roof management program, other, more highly evolved aspects play a fundamental role in helping retailers achieve the maximum benefit from their investment. These include:

Warranty Management

All manufacturers' roof warranties require biannual maintenance. Unfortunately, many retailers are unaware

of this stipulation, leaving them at risk for full-cost repairs or replacements in the event of a leak or other structural failure. A robust roof management program will offer a roof leak service agreement as an option. This facilitates review and tracking of warranty requirements — and provides a process to schedule, perform and document both inspections and maintenance, as required by each manufacturer. Should a retailer have to file a warranty claim, the roof leak service agreement ensures the property owner can provide documentary evidence that warranty maintenance requirements were upheld. All leak service calls should be completed in the timeframe you choose so the work order or ticket can be closed.

No Subcontractors

Many companies offering roof management are subcontracting their services. It's often the only way they can maintain a national footprint; unfortunately, sub-

contracting drives costs up for their retail clients. Worse, quality and continuity of workmanship suffers, sometimes dramatically. Be certain to partner with a company that uses its own staff, and no subs, to perform 100% of the scheduled work. This avoids double markups, and ensures the retailer consistently gets the same type and quality of work at every location. Perhaps most importantly, it provides a single point of accountability.

Predictable Budgeting

The more a retailer knows about the conditions of its roofs, the better it can budget for repairs and upgrades. Certain roof management contractors maintain databases that catalog roofing trends by manufacturer, type, materials, geographical location, and so on. This knowledge is then used in conjunction with data from retailers' store locations, compiled during preliminary and ongoing assessments. The result: the contractor can accurately

forecast repairs and expenditures 10 years out, based on the materials used and the preventative maintenance plan that's in place or being considered.

NATIONAL REACH, REGIONAL KNOWLEDGE

Roof management can't be a one-size-fits-all proposition. Programs must be tailor-made for each retailer's unique geographic footprint and level of roof responsibility, taking into account regional factors such as climate, weather, wildlife, industry, landscape, pests, and so on. For example, roofs made of galvanized metal can last for years in warm coastal zones, but rust quickly in the Northeast's cold and humidity. But standardized building designs can cause galvanized metal to be used in northeastern locales, increasing maintenance and repair costs. The roof's color must also be considered. Lighter membranes are preferred in warmer regions, because they reflect light to deflect

heat. These are just two of many regional factors that should be considered.

A PROTOTYPICAL PARTNER

Customized planning is also important for retailers prototyping or building new store designs. They can avoid costly post-construction remediation by designing for long life and energy efficiency up front. A roof management contractor should have the ability and experience to partner with retailers on spec or finished designs for new locations or renovations. Typically, the roof contractor will analyze the retailer's design, and identify opportunities to minimize energy use, lower the carbon footprint, and conserve costs, while remaining within the retailer's construction budget. Regional knowledge comes into play, as well. For instance, a building using gas or oil heat in New England should have roof insulation with a higher R-value — between R-38 and R-49 — to resist heat outflow. On the other hand,

roof insulation on the same building in the South should have an R-Value of R-22 to R-38, to deflect exterior heat.

Safety First

Fatal falls from roofs while on the job climbed 15% from 2005 to 2006, according to the Bureau of Labor Statistics. That's not including on-the-job injuries. To protect workers and avoid insurance claims and lawsuits, it's crucial that retailers investigate a roof management company's accident record and safety policies before signing on the dotted line. A good gauge of a company's safety record is its experience modification rate (EMR), which compares worker's compensation claims experience to that of similarly sized companies in the industry. Source a company with an EMR below 1.0. In addition, the contractor's technicians should be equipped with portable safety units, a recent innovation in the roofing industry. Workers should also receive in-house and

third-party safety training on a regular basis, to ensure compliance with OSHA regulations.

In the end, it doesn't matter if a roof is new, 6 months old, or has weathered a decade. A properly devised and diligently implemented roof management program can double a roof's life, reduce repair costs by 40%, save energy, cut landfill waste and help retailers qualify for energy rebates. Partnering with the right roof management company — one who meets all of the guidelines discussed here — can help retailers achieve these benefits with confidence. **PRSM**

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