#### Designer's Notebook



# Go Green

New Technologies Conserve Resources and Cut Costs

ocker rooms and bathrooms are small spaces that leave a big impression on clients and visitors. Even if you aren't marketing your resort as eco-friendly, incorporating "green" building elements can substantially reduce your operating costs.

Because restrooms and locker rooms account for a significant percentage of most facilities' water usage, they're a great place to start your conservation efforts. The good news is that plumbing manufacturers are making it easier than ever to design locker rooms that are not only attractive and easy to keep clean, but also have less of an impact on the environment. Many of these products also offer resort, spa and recreation managers better solutions to common challenges.

Although installing such products may

require a larger initial investment, their advanced technology saves money over their life cycle. Specifying these fixtures as part of a renovation project can also mean less maintenance and greater protection from vandalism.

### Slow the Flow

Your facility can give rest rooms a fresh, new look while incorporating significant water-saving strategies. It's estimated that specifying low-flow fixtures, metered faucets and waterless urinals can reduce water consumption by more than 30 percent. These low-flow fixtures translate to major cost savings in water and sewer bills, as well as energy costs for heating water.

Replacing your existing toilets with lowvolume toilets can conserve 2.9 gallons of water per flush. This is a simple but dramatic way to cut excess water use. Manufacturers are using pressure-assist technology to refine and push the performance levels of tanktype toilets. Additional water savings can be achieved by installing sensor-activated flush meters that control the water used during peak times.

Low-flow showerheads can reduce water use by 50 percent or more, saving about 14 gallons of water during a seven-minute shower. In the past, showers used as much as 7.5 gallons per minute. Today's low-flow showerheads can use as little as two. Since they reduce the amount of water used, they also reduce the amount of water that must be heated, cutting those costs, too.

Many local codes limit water flow for lavatories and faucets to 2.5 gpm, but specifying lavatories that use just 0.5 gpm can save even more. To further decrease energy costs, consider tankless water heaters. These newer devices require only a cold water source and provide hot water on demand at the faucet.

#### High-Tech Hygiene 💆

While low-flow fixtures may seem mundane, there are some high-tech solutions, too. One of these is light-activated handwashing stations. These sinks are made of solid-surface materials that offer a high-end look while having



Hand dryers reduce restroom litter.

photovoltaic cells discretely integrated into the top of the lavatory systems. This proprietary energy-management system collects and captures normal restroom or solar lighting and converts it to energy used to power the lavatory's valves.

Selecting light-activated over typical battery power can help save facilities with high-traffic washrooms hundreds to thousands of dollars each year in replacement batteries, as well as the time involved to change them. It also helps reduce the 2.5 billion pounds of batteries sent to landfills each year.

#### Improved Hands-free 😕



When it comes to faucets, a recent innovation is drastically improved hands-



free technology. In the past, shiny reflective surfaces such as mirrors or countertops, soap scum and users with different skin tones interfered with faucet performance and often caused false activations. Thanks to capacitive sensing technology, using and maintaining hands-free faucets has become hassle free.

Capacitive sensing features an omnidirectional detection zone, rather than a small sensor window or "sweet spot" under the spout. An electrical field surrounds the entire faucet and detects a user's presence from any angle of approach.

Users appreciate hands-free because they don't have to touch contaminated surfaces. Owners and managers appreciate that less water is used; water shuts off automatically once the user steps away from the fixture. The same water-saving benefit can be achieved with showers that are either sensor-operated or metered to automatically shut off after a pre-set amount of time.

Today, hand dryers, paper-towel dispensers and even soap dispensers come

## **Booming Trend**

Rising utility costs and water shortages are affecting many areas of the country, giving you another incentive to reduce water consumption and lower operating expenses. In fact, some cities are so short on supply that they're using rebates to incent homeowners and businesses to implement watersaving measures.

Our limited supply of natural resources is one reason for the growth of the green building movement in the United States. Another driver in the hospitality sector are America's 75 million baby boomers. Boomers entering their prime are concerned about staying young, active and leading an eco-friendly lifestyle.

"Boomers were among the firstmovers on environmental issues, championing the likes of Earth Day and recycling," says Laurel Kennedy, president of Age Lessons, a Boomer consulting firm. "On the recreation front, their appreciation for all things green has prompted the development of golf courses that double as Audubon-certified wildlife adventure vacations sanctuaries, that explore natural wonders and eco spas, and environmentally friendly destinations that combine global and personal health. "

in touchless models. Hand dryers in particular have benefited from upgraded mechanicals. The energy to operate the new generation of hand dryers is generally less than 10 percent of the cost of paper towels, including the elimination of associated labor costs for ordering, storing, replenishing dispensers, and collecting and disposing of paper towels.

### Recycle and Reuse



Beyond plumbing fixtures, there are a number of other ways to incorporate green design. Recycled glass tiles, for example, are increasingly being used for floors and walls in wet locker room areas.

For dry areas, such as in dressing rooms or near lockers, try to reuse some of the 5 billion pounds of carpet replaced each year. Much of the old carpet, along with plastic soda bottles and other textiles, can be woven into new carpet fibers. Recycled content carpet has a similar look, feel, and price as virgin carpet fiber.

Post-consumer recycled plastic is also changing the face of lockers. Plastic lockers are an ideal alternative to wood lockers that can rot or metal ones that rust. Solid plastic lockers are often made of at least 30 percent postindustrial recycled content, high-density polyethylene plastic. Some manufacturers even offer lockers made of 100 percent post-industrial recycled material.

## What's Next?



In the '70s, the Clean Air and Clean Water acts were passed primarily as a result of baby boomers and their concern for the environment. Thirty years later, the U.S. Green Building Council is advancing environmental responsibility through its voluntary rating system for satisfying green building criteria known as LEED.

As architects and planners become more familiar with LEED building practices, look for LEED projects to become the norm, rather than the exception, in the hospitality and recreation industries. Until then, you can take advantage of the many new products being developed to help facilities become LEED certified.

Before selecting a product or signing off on any new construction or renovation project, ask yourself, "Is it environmentally friendly?" If the answer is no, you may want to rethink your strategy because your future customers just may be asking the same question. R+R

#### RESOURCE BOX:

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