



MEDICALOFFICETODAY

Top 5 Green Building Trends for 2011

By Daniel Casciato

Aside from energy efficiency, one of the biggest benefits of green construction is a healthier environment because of the materials used and because of the way the construction is performed.

If sustainability is a goal, it must be prioritized from the very start, according to Marc Margulies, a principal with Boston-based Margulies Perruzzi Architects. "The paperwork, the planning, and the implementation must be integrated from day one," he says. "Green environments are healthier environments, which make them particularly consistent with the practitioners' mission."

Margulies cautions that while medical office facilities are not as hard to build green as a hospital, they can be more difficult than an ordinary office building. "Because of the importance of infection control, many components are different than an office building, he says. "The mechanical systems are more complex, the materials used must withstand more harsh cleaning products, and sterilization requires more water and electricity, for example."

If you're building a new facility for your practice or you're remodeling, here are some green trends to keep an eye on for 2011.

1. Improving air quality

Indoor air quality is becoming increasingly important, especially to those with compromised immune systems—and many who visit medical office buildings fall in this category.

Healthcare interior designer and sustainability consultant Norma Rosowski, LEED AP at The Beck Group in Dallas recommends selecting low-emitting building materials including items such as paint, carpet, and wood products. "High efficiency air filters and improvements in ventilation will help," she says.

Air filters are rated by numbers, and the higher the number the better filtration it has and can filter out most of the contaminants which can go airborne into the building. Rosowski recommends air filters rated 13.

"Make the indoor air quality as pristine as it can be," Rosowski says. "Don't put building materials that can emit harmful toxins and keep that air fresh and clean by filtering it regularly. On top of that, the things you do in the building should not increase toxicity as well. So you also want to use green cleaning products that are non-toxic."

2. Using low VOC-materials

There are a number of components to the design and construction of an office space that make the environment healthier.

“When you are dealing with a healthcare environment where people’s systems are that much more compromised, it’s just that much more important,” says Margulies.

There are a number of furniture products and millwork construction that in the past may have been built with formaldehyde in the glue or other sealants. These products can give off odors or vapors that some people are allergic to or can make them nauseous. Also, some paints and even some floor finishes used to be VOCs (volatile organic compounds) which people can be allergic to or sensitive to.

“When you specify a green environment, part of the process is to make sure that the installation of those materials you are selecting avoids any of these objectionable or potentially hazardous components,” says Margulies.

Those who design, construct, and maintain buildings are increasingly looking at how long products will last, and also at maintenance cost, which is critical for exteriors, adds Jonathan Wierengo, director of marketing of the Wixom, Mich.-based The Tapco Group.

“Products that are attractive for sustainable building also have lower scrap rates, reducing waste and adding cost-effective efficiency,” Wierengo says. “When it comes to health benefits, factors like low-VOC finishes and adhesives are desired, from carpets and interior paint to exterior components.”

3. Installing cork floors

When it comes to decorating a medical office there are many things to consider—it should be clean and simple, in addition to being welcoming and warm. Physicians, nurses, and patients need to feel like they are in a comfortable safe environment. Cork flooring fulfills all of these requirements, and it’s also eco-friendly. The Portuguese Cork Association (APCOR) lists these reasons why you should favor cork over carpeting and hard floors:

- It’s durable and abrasion resistant.
- The air pockets within cork make it one of the most efficient non-conductors of heat and cold, meaning that even if a room is cool, the floor will feel comfortable and warm.
- Cork is mildew, rot and mold resistant and is also easy to clean and maintain.
- The cushioned surface works to protect dropped items by absorbing impact versus shattering on contact as well as makes it incredibly comfortable for people who are on their feet the entire day.
- Cork is naturally anti-static and hypo-allergenic. Because cork does not absorb dust, it helps protect against allergens and helps minimize risk for allergy sufferers.
- Its 200 million air cells per cubic inch and built-in air cushions absorb vibrations and direct impact, making cork naturally quiet.

4. Adding a new roof

Along with energy efficiency, some of the biggest advantages of green construction are long life-cycle performance, water conservation with low-flow fixtures, improved health benefits and having virtually no maintenance to perform.

“These sustainable design characteristics can factor into specific green building certifications available for medical buildings, such as Green Guide for Health Care, LEED Application Guide – Labs, and LABS21, along with various LEED rating systems including for existing buildings and interiors,” says Wierengo.

Within energy efficiency alone, he says that there are growing trends with roofing characteristics: photovoltaic systems, daylighting, green roofs, and cool roofs.

“One example is InSpire Roofing's Sand-colored composite slate roofing, which qualifies as cool roofing under LEED and also qualifies for a number of Future Impact credits because it contains recycled content and is reusable,” he says.

5. Incorporating lean construction practices

One benefit to green construction is promoting an eco-friendly workplace and reducing your carbon footprint. Patients may also feel good about who they do business with.

“Making a difference, even at the micro level is a plus these days, to have a building that is efficient and friendly to the environment,” says Mukesh Patel, senior healthcare planner for Dallas-based t. howard + associates architects.

Beyond green, Patel advocates the use of lean construction practices where the facility and the delivery process are better designed to maximize value, reduce waste, and improve the overall performance of a facility.

“The owners are also more involved in the project. All of the products and materials coming to the site are done in a timely manner,” says Patel. “You're also separating the trash from recyclable materials. Lean construction is about streamlining and not wasting energy or products. Commercial buildings, including medical office buildings, are the largest consumers of power in our nation. If these buildings are more efficient and green, that will contribute the most to this country to becoming greener.”