

Bring Your Dental Office into the Green

By Jerry Kingwill

Dental construction entails unique challenges for both builders and dentists alike. In addition to the strategic process of equipment integration, the emphasis on making these facilities healthy environments has become even more important. The market for green products is expanding as more owners and developers demand sustainability, which is defined as the ability to meet the demands of today without compromising the capacity of future generations to meet their needs. Consequently, dentists are turning to construction experts with experience and knowledge in environmentally friendly building practices.

Leadership in Energy and Environmental Design (LEED) standard has become the point of reference in green building across the nation. LEED is a program developed by the U.S. Green Building Council, which promotes sustainable green-building practices through a certification program and has developed one specifically for the health care industry. According to its website, "The LEED for Healthcare Green Building Rating System

was developed to meet the unique needs of the health care market." This rating system is readily being adopted as an accurate identifier of all that is "green" in the construction industry, and is being adapted to accommodate dental construction projects throughout the country.

Some products to take into consideration during an adaptive reuse application or while constructing a new building may include the following:

- Energy Star-Compliant Building Envelope — High-quality insulation (often blown-in blanket "BIB" systems); maximum air infiltration; energy recovery ventilators, which replace stale indoor air with fresh outdoor air without heat or cooling loss (www.ultimateair.com); BioSIP panels (structural insulated panels <http://www.newportpartnersllc.com/technologies/biosips.html>); spray foam insulation system (www.icynene.com/GreenBuilding.aspx)
- Plumbing — Dual-flush toilets, water-free toilets, 1.0 gpf pressure-assisted toilets, hand dryers (www.sloanvalve.com), solar hot water tanks
- Wall and Flooring — Low- or no-VOC adhesives in carpets, fast growth wood flooring like bamboo and cork, water-based finishes
- Lighting — Energy Star light fixtures, time-delayed motion sensors, LED fixtures, increased natural lighting
- Appliances — Energy Star-approved appliances
- Roofing — Living roofs with plants and water management systems, roof shingles made from recycled plastic or clay tiles
- Countertops and Cabinetry — Concrete or Silestone quartz (www.silestoneusa.com), formaldehyde-free materials,



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low-VOC glues/adhesives/finishes (www.neilkellycabinets.com)

- Windows — High-performance/low-E glass windows from Pella, Jeld-Wen, Andersen

Additional information on green products can be found at <http://greensource.construction.com/products/BuildingGreen.asp>.

While construction and building design professionals understand the importance of meeting local and federal building codes, it is becoming increasingly important for all members of the construction team to collaborate in making low-energy consumption and sustainability a priority as well. By applying green-building standards and seeking out certified products and designers, construction professionals can further dentists' goals for sustainability. Building a healthier environment for a dental facility is a win-win situation for owners, employees and patients, as well as the environment in which we all live.

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