

Simple steps for building a “green” branch

By Sandra Haltner

Did you know that buildings consume about 30 percent of the total energy and about 60 percent of the electricity used in the United States annually? Did you know that five billion gallons of potable water is used every day just to flush toilets? Did you also know that it was predicted we would replace 153 million computers in 2006?

If you are contemplating building a new branch, consider this: A typical commercial construction project generates as much as 2.5 pounds of solid waste per square foot of completed floor space. To determine the solid waste that your new branch is going to generate multiply your proposed square footage by 2.5. That is how much solid waste will end up in a landfill.

These are just a few reasons why building green is so important.

Building green is defined as the practice of increasing the efficiency with which buildings and their sites use and harvest energy, water and materials, and reducing buildings’ impacts on human health and the environment, through better siting, design, construction, operation, maintenance and removal.

Sustainable design, also referred to as green design or eco-design, is the art of designing physical objects to comply with the principles of economic, social and ecological sustainability. Sustainable design includes everything from small objects, to building design, cities and the earth’s surface.

It is a growing trend in architecture, landscape architecture, engineering, industrial design, interior design and fashion design.

Here are some guidelines when you want to construct a green, sustainable building.

Preserve the habitat and natural resources on your site.

Green siting and land use

- Preserve the habitat and natural resources on your site.
- Reduce the building energy load by orienting your branch on your site to take advantage of cooling breezes.
- Reduce heat islands in your parking areas by eliminating blacktop surfaces.
- Implement groundwater recharge.
- Minimize using potable water for irrigation by using drip irrigation, rainwater capture and gray water.
- Use plants that require little irrigation.
- Use passive solar to help warm your branch in the winter.

- Provide shading for the summer to prevent your branch from overheating.

Green construction

- Take advantage of daylighting by designing courtyards, atriums, clerestory windows, skylights and light shelves to reduce energy costs.
- Use wood from certified sustainably managed forests.
- Use salvaged/reclaimed lumber for your interior paneling, door and window trim.
- Use salvaged doors from demolished old buildings for your front entry doors. Some of the old doors are from demolished bank buildings.
- Use natural stone.
- Use recycled metal.
- Use recycled brick.
- Specify that non-toxic materials be used in the design of your branch.
- Use materials that are extracted and produced locally to your site to minimize the transportation energy cost of getting it from one part of the world to your locality.
- Use insulation made from low VOC (volatile organic compound) emitting materials such as denim and not the fiberglass insulation you are familiar with using. Be sure the alternative insulation is treated with Boric Acid to discourage insect damage.
- Consider organic and milk-based paints.
- Avoid dark roof surfaces by using roof colors that reflect heat.

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Use passive solar to help warm your branch in the winter.

- Add overhangs to improve solar gain in the winter and minimize summer solar gain.
- Use high performance glazing.
- Use high performance insulated windows and doors.
- Reduce ozone depletion by installing HVAC, refrigeration equipment and fire suppression systems equipment that do not contain HCFCs (a compound consisting of hydrogen, chlorine, fluorine and carbon).
- Reduce the burden on municipal water supply systems by specifying water-efficient fixtures.
- Divert construction debris from the landfills by redirecting recyclable building material back to the manufacturing process.

Interior

- Use energy efficient light fixtures.
- Control lights in seldom-used rooms with occupation sensors.
- Use light dimming controls.

- Use interior materials that come from rapidly renewable resources such as bamboo and cork.
- Improve your air quality by using non-toxic finishes that have zero emissions after construction for your painting, carpets and building adhesives.

- Use products that specify recycled materials for your carpet and VCT flooring.
- Use reclaimed wood sold as flooring for your conference room.
- Divert gray water from hand washing to flush toilets and for irrigation through a storage tank system.

Once your new branch is completed there are still several ways to help the

environment. For example, reduce e-waste by donating computers and cell phones instead of throwing them away. Here are some other quick tips for keeping your branch green:

- Turn on the EnergyStar settings on your computer.
- Use a reusable filter system like Brita or recycle the plastic water bottles.
- Purchase high recycled-content paper.
- Use recycle bins for paper, plastic and aluminum cans.
- Send documents electronically.
- Fax directly from your computer to avoid printing.

Reduce e-waste by donating computers and cell phones instead of throwing them away.

- Use tree-free paper and soy-based inks for some of your printing.
- Recycle ink-jet cartridges.

By following these examples you will reduce the impact your branch will have on the planet and you will be contributing to a healthier environment.

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