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## **What green design strategies can be used in retail operations to reduce their environmental impact?**

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What green design and sustainable design strategies can be successfully implemented in retail operations to reduce their environmental impact?

Green design and sustainable design refer to strategies for meeting the needs of the current generation, while keeping in mind a long-term strategy for the wellbeing of future generations. The basic strategies of green design can be employed by any company to reduce their environmental footprint, while also reducing operating costs and providing healthy environments to live, work and shop.

Here are five strategies to 'green-up' your business:

1. Install energy efficient lighting. For new construction, new types of fluorescent and LED light fixtures can reduce electricity use for lighting by 40% or more without a loss in light quality. Existing stores can benefit from this strategy as well. Many lighting systems can be cost effectively retrofitted to be more energy efficient. Many local electric utility companies offer rebate programs to encourage installation of energy efficient fixtures. The combination of rebates and reduced utility costs often results in payback periods of two to five years.
2. Take advantage of natural daylight. The sun provides us with abundant free light during the operating hours of most retail businesses. Many big box retailers, like Wal-Mart and IKEA, have found that they can use daylight to provide a significant portion of their necessary interior illumination. This is done by installing a number of small skylights distributed throughout the store in conjunction with automatic dimming controls on the lighting system. As natural light streams into the store through the skylights, the electric lights are automatically dimmed or even turned off, further reducing utility costs. Energy efficient lighting and daylight harvesting have the long-term effect of reducing the need for new power plants and reducing our dependence on fossil fuels.
3. Recycle trash and choose products that include recycled content. The extent to which managing the waste your operation produces can help the environment is surprising. By recycling your trash, not only do you reduce the number and size of landfills needed, but you also make waste materials available for use in manufacturing new products. This has the long term effect of reducing the cost of manufacturing, reducing the need to exploit virgin resources, reducing the need for landfills and reducing our tax burden. Choosing products made with recycled content helps to promote this transformation of the materials supply chain.

4. Locate your business within walking distance of residential areas, other businesses and public transportation. This strategy significantly reduces both the need for land devoted to parking lots and the number of single occupant auto trips generated. Locating your business within an active pedestrian community promotes a healthy lifestyle in which exercise becomes a natural part of everyday life. It also provides a steady stream of people passing by, which is good for business as well.

5. Install water efficient plumbing fixtures. The limited availability of potable water is an increasing problem in major cities. Installing aerators on lavatories and sinks reduces water flow while improving effectiveness of rinsing. Self-closing or electronic sensor faucets can further reduce the amount of water consumed per use. Toilets use a significant amount of potable water, but there are a number of options now available that use considerably less than the building code mandate of 1.6 gallons per flush. Dual flush or pressure assisted units are two common options. Installing these water conserving lavatories and toilets can reduce water use by 20% - 30%, minimizing operating costs. Water use reductions, in aggregate, allow municipalities to reduce or defer the capital investment needed for water supply and wastewater treatment infrastructure, which results in more stable municipal taxes and water rates. These strategies also reduce the total amount of water withdrawn from rivers, streams, underground aquifers and other water bodies saving water resources for future generations.

These strategies are only the beginning of actions you can take to green up your business. Incorporating sustainable design features in your business is a win/win strategy, they are not only good for the environment, they are good for business.

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