

# Sustainable Hospitality Design: Catching Up

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## Impact on the Environment

The world's environment is affected primarily by real estate, transportation, and manufacturing. Due to the influence that these industries have on each other, it is clear that designing and operating sustainable buildings have a tremendous impact on the environment. Some of the concerns addressed by **sustainability practices** include inefficient site planning; lack of smart growth; waste of water, electricity, and energy; overconsumption and excessive waste; not using sustainable materials; minimizing transportation; the lack of healthy indoor air quality; increased pollution; depletion of the ozone layer; and climate change.

## Challenges and Misconceptions

The hospitality industry was slow to adopt sustainable operations and design because hoteliers were unfamiliar with sustainability practices. Risks of the unknown and the perception that green design would be difficult to incorporate were factors in the slow implementation. **Cost**, particularly with initial cash outlay and uncertainty regarding the return-on-investment benefit, was another challenge. In the early days, green products were considered expensive and would look and feel boring. Hoteliers worried that sustainable design would be a passing trend and leave them with little benefit. They believed that a safer way to promote sustainability was through reducing housekeeping and water use.

However, today, a return on investment and other intangibles have become the motivating factors to implement sustainability initiatives across many hotels. It took several brands adopting green policies to convince more hoteliers to follow suit for their branded and non-branded hotels.

## Sustainable Hospitality Design

From an architecture and design perspective, the following list outlines sustainable features used within the hospitality industry.

- **Low-Flow Fixtures:** Hotels use an enormous amount of water given the number of guestrooms and public-space demand. By using sinks with low-flow faucets, low-flow showerheads, and dual-flush toilets, properties can reduce water usage up to 30%. More plumbing products continue to be developed that save water and still allow for good water pressure, so as not to compromise guest expectations and experience.
- **LED Lighting:** LED bulbs are seven to eight times more energy efficient than incandescent bulbs and two to three times more energy efficient than compact fluorescent bulbs. LED bulbs last six to eight times longer than other bulb types, have a wider variety of color "temperature," and have more advanced controls available, enhancing their performance. Creative and cost-efficient opportunities for light-fixture design are boundless.
- **Recycled, Local, Low-Emission Materials:** Specifying materials that include recycled content and are made locally saves on transportation costs, conserves resources, and promotes community involvement. Low-emission materials reduce off-gassing from volatile organic compounds, sealants, caulks, paints, and urea formaldehyde from millwork production. This feature leads to better indoor air quality and contributes to

## Summary

The concept of sustainability has been around for decades, popularized by the First World Climate Conference in 1979, the inception of the United States Green Building Council (USGBC) in 1993, and the publication of Vice President Al Gore's book about climate change (An Inconvenient Truth) in 2006. While other building types were early to adopt this concept, hospitality seemed slow to embrace green building design. Today, hospitality design is making noticeable changes to catch up.

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- ***Energy Management:*** Energy can be reduced greatly by tying guestroom and public-space occupancy sensors, thermostats, and lighting controls to a central, computerized energy-management system for the building. The system can help minimize energy use when guestrooms are not booked. Using energy-efficient glazing, automatic draperies, and more efficient HVAC units will help naturally warm the rooms in the winter and reduce heat in the summer.
- ***Touchless Technology:*** Incorporate touchless options into design, such as automatic faucets, touchless paper dispensers, occupancy sensors for HVAC, and smartphone-enabled door hardware. These features help reduce water usage, reduce waste, regulate energy, and add personal control to the guest's experience. Touchless technology also promotes healthy living by reducing contact and the spread of germs.
- ***Electric Vehicle Charging:*** Encourage the use of zero-energy vehicles by making it convenient to drive to the property, recharge for excursions, and park closer to the entrance.
- ***Combined Spaces, Shared Amenities:*** Create spaces to fulfill multiple functions, such as a great room concept to serve as lobby space, allow for food and beverage service where it did not exist before, tie in a traditional bar/lounge area, provide coffee and water, activate the public space, encourage business during the week and leisure on the weekends, and add an enticing market.
- ***Smaller Guestrooms:*** Efficiently utilize space without sacrificing guest experience, allocate more of the design budget to create lively public spaces, and create less waste in the smaller footprint.
- ***Modular Construction:*** Allows for low waste of materials, efficient use of lumber or light-gauge framing, easier transportation, a higher quality finish, and quicker time to market.
- ***Zoning Incentives:*** Jurisdictions around the country are encouraging sustainability by allowing an increase in floor area ratio (FAR), creating tax and financial incentives, and expediting approval times for sustainable projects. Some jurisdictions are even requiring green elements in their local codes. Hoteliers need to be aware of these items when creating their initial budgeting and layouts.

## **Benefits of Sustainable Hotels**

Adopting sustainability practices at hotels supports the environment and the wellness of guests in a number of ways. With these efforts, a hotel can conserve resources, promote community, reduce energy use (perhaps to net-zero levels), lower waste, reduce stormwater runoff, save water, improve air quality, increase natural light, improve wellness, reduce carbon footprint, save the ozone layer, and stabilize climate control.

Furthermore, hoteliers benefit financially when they implement sustainable design. These design elements and practices can help meet guests' growing expectations, attract eco-conscious guests and conferences, give the hotel a competitive advantage, enhance the hotelier's corporate identity, make it easier to meet brand standards and local regulations, raise average daily rate, increase occupancy, lower operating expenses, increase the life expectancy of building systems and equipment to reduce the reserves needed, and ultimately increase the asset's value.

In the end, sustainable hospitality design will go a long way to improving the hotel's bottom line, while also helping to keep the world habitable for future generations.

## About **Scott P. Rosenberg**



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