

GREEN HOUSTON

Energy efficiency, daylight views are among the keys to being green

Sustainability seems to have become a buzzword in every industry, but what does it mean to have a “green” office?

A green office can have as many ingredients as it has benefits, says Stuart Harris, architect and principal with Houston-based PDR Corp.

Harris serves as a project manager for large-scale corporate relocations, comprehensive renovations and major facility transformations. Below, he answers some frequently asked questions from clients regarding office space:



We also look at the efficiency of a building's central plant and utility systems. For example, does it have an energy management system, or high-efficiency lighting and occupancy sensors in place?

Q *There is a lot of talk about LEED certification for buildings. Are all LEED buildings equally energy efficient?*

No, not at all. Although LEED certification makes identifying a sustainable building easier, those looking for new space would be well advised to look at where the building achieved its LEED points.

It should have achieved points for the Optimize Energy Performance Credit. This determines how much more efficient a building is compared to a given baseline. LEED certification also means other sustainability considerations have been made in transportation, water efficiency, indoor environmental quality and building materials.

Q *What is the most pressing sustainability factor for a company to consider when evaluating a new space?*

Without question, it's energy efficiency. Operating expenses can equal up to one-third the rental rate and with big swings in the energy markets in recent years, an energy-efficient building will offer stability in these costs. In addition, an energy-efficient building will reduce associated greenhouse gas emissions, which contribute to climate change and regional smog.

Q *How does one go about determining if a building is energy efficient?*

We look at the building's envelope, or how well it is insulated. We look at the building's orientation, or how much solar heat gain the HVAC system needs to offset.

Q *What about the Energy Star program? Is that also a good way to gauge how a building stacks up in the area of energy efficiency?*

Absolutely. In order to earn Energy Star certification, a building must perform in the top 25 percent compared to similar buildings in a given year. Since there are no established metrics to meet, the benchmark improves year to year through the competitive nature of the program. The score represents the performance percentage and makes it is easy to distinguish top performers.

Q *What other sustainability factors should be considered?*

Daylight, views and air quality would top my list. In part, these factors make up the indoor environmental quality of a workplace. They also play a role in employee well-being and productivity.

Also, look for office space with a shallower “loft dimension” — the distance from the building core to the window wall, which will provide more workers an opportunity to access daylight. Then plan the space to allow most everyone to have access to a view and natural light.

Q *How else can a business contribute to better air quality?*

Outside the office, the use of single-occupancy vehicles in the Houston area contributes to smog and the Houston region's poor air quality. By selecting a building with convenient access to public transit (buses and light rail), a company can promote the use of public transportation and reduce emissions associated with the daily commute.

Finish material such as paints, wall coverings and carpets can give off volatile organic compounds, or VOCs, which degrade air quality. To improve indoor air quality, specify paints and carpets with little or no VOCs.

Look for a building with a green housekeeping program. These reduce the exposure of building occupants to potentially harmful chemicals that negatively affect air quality and occupant well-being. It's even possible to negotiate a green cleaning program into your lease. ■

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