

## ADOPT A WHOLE-BUILDING APPROACH

Good leadership is important to the success of any building project, but it is particularly vital in green building efforts. Some members of your building and design team may not be accustomed to thinking about a building as a single, well-integrated system -- a key strategy in green construction -- so make sure everyone you're working with is committed to thinking ahead and working collaboratively.

In this section, you'll find out how to adopt a "whole-building approach" at the planning stage of your project. Taking steps to enhance communication and cooperation among team members will go a long way toward helping you meet your environmental and certification goals on budget.

## SET YOUR GOALS EARLY

The earlier you set your green building targets, the further your dollars will stretch, the more you will be able to accomplish and the greater your return on investment will be.

For little or no additional cost up front, you can achieve certification for your project according to the LEED green building rating system -- which offers guidelines and suggested strategies in the areas of site, water, energy and atmosphere, materials and resources, and indoor environmental quality.

Certification can help boost media interest in your business and offer proof to potential tenants and buyers that you've achieved your sustainability goals.

Once you've settled on your budget and your LEED certification target, use green strategies to design costs out of your project.

## BUILD A GREEN DESIGN TEAM

Your best opportunities to green your project occur in the earliest planning stages, so it's important to make experienced green building professionals a part of your team from the start. Maintain a green vision to ensure that your project has the characteristic synergies of robust green design efforts.

To integrate your green project effectively, you'll need to think ahead, coordinate closely between multiple disciplines and make use of computer modeling and other non-standard design practices. While the architectural costs of green design may be higher than more standard approaches, creating a high-performance design will lower your construction costs, especially if you involve your contractor early on.

Throughout the course of your project, green building experts from architects to lighting engineers can help you overcome barriers, offer insights on economics and marketing and help you stay on schedule and on budget. By spending a little extra up front to hire a project manager with green building expertise, you can streamline the design and building process and save yourself money in the long run. In addition, consider engaging a commissioning agent from the outset: these professionals are experienced at spotting common design mistakes and can lead you quickly to an efficient solution.

## INTEGRATE THE DESIGN AND BUILDING PROCESS

If you're a newcomer to green building, prepare to make the shift from the more linear building and design process of traditional construction to an integrated approach.

You can do this by inviting the members of your building and design team to come together early in the design process to set goals and discuss strategies. This approach fosters integration and ensures that decisions made by the architect, for example, do not undercut the ability of the mechanical engineer to deliver a cost-effective heating and cooling solution. Integrated design approaches can help avoid the trap of using technology to overcome bad design decisions. With good integration, you can achieve a range of synergies, including the following:

- High-performance windows, high-efficiency office equipment and lighting, and a green roof can allow for a smaller air conditioning system and reduce the amount of water needed for cooling.
- Light-colored pervious paved or grass parking lots can reduce heat islands and control stormwater runoff.
- Well-placed landscaping, light-colored roofs and proper orientation and building shape can all further reduce cooling loads.
- Cisterns help manage stormwater inexpensively and provide water for irrigation, flushing toilets and other purposes. Reducing stormwater runoff helps keep harmful pollution out of waterways.
- Water-efficient and waterless fixtures help reduce potable water use, lowering utility bills and decreasing the strain on municipal water supplies.

## USE THE LEED RATING SYSTEM AS A GUIDE

As you proceed through the design and construction process, examine every decision your project team makes in terms of your environmental and certification goals.

The LEED green building rating system can provide a useful reminder to integrate solutions and strategies. If you set out to construct a well-integrated building, with green features that attain multiple objectives, you will achieve the kinds of synergies that result in lower construction costs and high LEED credit totals.

## ENGINEER FOR ENVIRONMENTAL VALUE

As you value-engineer your project, be sure to examine green investments in terms of how they will affect expenses over the entire life of the building. Before you decide to cut a line item, look first at its relationship to other features to see if keeping it will help you achieve money-saving synergies, as well as LEED credits. Many energy-saving features allow for the resizing or elimination of other equipment, or reduce total capital costs by paying for themselves immediately or within a few months of operation. Even more effective in the long-run is to implement "life cycle" value-engineering rather than "first cost" value-engineering.

## TAKE ADVANTAGE OF INCENTIVES

In many areas of the country, utilities and state and local programs offer a range of monetary and non-monetary green building incentives, including energy modeling support, efficient-equipment rebates, credit documentation, expedited permitting and review, tax credits, and technical and administrative assistance.

To find out what incentives are available in your area, contact your state energy office, your local utility and your local building department. The Internet is also a good source of information on incentive programs.



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