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A Logical Step Toward Sustainability

SERA Architects in Portland, Ore., is an example of a company that not only emphasizes sustainability—it won't settle for anything less.

BY LISA LAITINEN

SERA Architects Inc. has been located in Portland, Ore., since 1968 and has had a major impact on turning downtown Portland into a center of urban livability and environmental responsibility. The architects and planners at SERA took on

designers who understand sustainability as a unifying design philosophy.

Today, as a 100-percent-employee-owned company, SERA's leadership within national organizations such as the U.S. Green Building Council (USGBC), the Oregon Natural Step Network and the AIA Committee on the Environment help provide it with state-of-the-art knowledge of sustainable-design approaches to create energy- and resource-efficient buildings and communities.

The firm says that the trend toward resource efficiency has been a search for ways to build both more sustainably and cost-effectively. Resource efficiency refers to several strategies employed by architects to avoid environmental impacts. The first strategy is to reuse existing buildings when possible to take advantage of the embodied energy these structures contain. This is especially true

The second strategy is to deconstruct rather than demolish when buildings or parts of buildings are no longer of service. Deconstruction allows building materials to be salvaged rather than disposed. Deconstruction projects in Portland today are typically seeing upwards of a 95-percent diversion rate from landfills because of a growing infrastructure and economy in construction-material-waste recycling.

The third strategy is to specify regional and local materials in any new construction to cut down on transportation costs and the environmental impacts of burning fossil fuels. An added benefit of specifying locally is how it can also help create local economic wealth and new employment opportunities.

A fourth strategy is to specify both salvaged materials and materials with high recycled content. This strategy can also realize cost savings over utilizing virgin mined materials. All of these resource-efficiency strategies—building reuse, deconstruction, and use of local and recycled materials—offer potential cost, community and environmental benefits, and are also recognized by the USGBC as primary areas for potential Leadership in Energy and Environmental Design (LEED) certification points.

In September 2004, SERA moved into a newly renovated historic building just five blocks from the firm's original location in downtown Portland. The move was due to a desire to have the work environment match the firm's mission of sustainability. In preparation for the move into the new



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sustainable practices, such as urban redevelopment and revitalization of historic buildings, long before the term "sustainability" was even conceived. However, in the last 10 years, sustainability has become the firm's guiding principle into the future, and it has worked hard to bring on board

in urban situations. Often, existing buildings can be purchased and redeveloped at less cost than building new. Even with the costs of seismic, mechanical systems and accessibility upgrades, the cost savings of recycling a building can be significant compared to demolition and starting new.

offices, SERA undertook a comprehensive “backcasting” process led by the Oregon Natural Step Network to develop a framework for sustainable business practices that would be implemented in the new offices.

The overarching goal was to change all of SERA’s operations toward a fully sustainable way of doing business. The architects of SERA understood that as a company succeeds in changing its culture, it would also have positive impacts that expand beyond the boundaries of the office, as employees influence the thinking of their clients, families and acquaintances. They targeted every area of their office operations and created waste-reduction plans that even eliminated trash bins from individual desks. This step quickly caught everyone’s attention and also emphasized the role of the expanded centralized recycling center. They installed a compost and worm bin in the building, and staff takes the compost home for use in their personal gardens.

All of the steps that SERA implemented have been logical steps toward sustainability. They have learned to rely on common sense such as proper building orientation, natural daylighting and natural ventilation rather than sophisticated mechanical systems and expensive technology to guide them in their work. Most of SERA’s clients are long-term owners that appreciate sustainable design concepts for their projects because they realize the benefits of building for future generations. Sustainable design is all about building for the long term, and the associated investments are more than paid back over the years.

Recent research studies available on the USGBC Web site discuss the potential costs and benefits of sustainable building. A State of California report identified that the first-cost premium to build green buildings can be as low as 0 to 2 percent and yield a 20-percent lifecycle savings on the total construction costs. According to another study entitled “Costing Green,” many sustainable buildings have actually had no increase in building costs, and some have even been less expensive to build than con-

GREENED TO THE NINES

Construction is under way on SERA Architects’ design for The Nines, a 331-room hotel developed by Sage Hospitality Resources. The new hotel is being created by renovating the top nine floors of the historic 15-story, 600,000-square-foot Meier & Frank Building in downtown Portland.

The Meier & Frank Building, constructed in the early 1900s and listed on the National Register of Historic Places, served for over a century as the retail heart of downtown Portland. The building’s redevelopment maintains its historic prominence as a community retail landmark, with the lower five floors dedicated to a new Macy’s department store. The upper floors are being transformed into The Nines, a Starwood Luxury Collection Hotel, with an atrium, ballroom, lobby, restaurant and rooftop lounge.

The Meier & Frank Building had suffered from a lack of investment over the years, requiring a full seismic upgrade and complete restoration of the terra cotta skin on its façade. “It took creative thinking to renovate the building from a seismic perspective,

maintain the building’s historic qualities, and at the same time find a new use for the building’s upper floors,” said John Echlin, principal designer with SERA Architects.

The Portland Development Commission (PDC) worked with Sage to maximize the renovation’s funding through Federal New Market Tax Credits, Historic Tax Credits and PDC’s seismic loan program. The project is aspiring to achieve a Silver certification from the USGBC’s LEED program.

In addition to saving a historic landmark, SERA’s design for The Nines brings both economic and environmental benefits to the community. The hotel is projected to achieve 33-percent water savings and 26-percent-greater-than-code energy savings without compromising guest comfort. With 95 percent of construction waste recycled targeted, the renovation’s impact on landfills will be negligible.

According to Chris Ziegler, project manager for Sage Hospitality, “This building sets a new standard for historic reuse and for achieving historic tax credits while at the same time realizing a high quality sustainable design.”



ventional alternatives because sustainable design downsizes the use of costly mechanical, electrical and structural systems.

Recently there has been a trend in the Northwest to get away from speculative development that tends to give a quick turnover. Clark Brockman, an associate at SERA, observed, “The last 10 years has been about how to get buildings to be much more energy-efficient; the next 10 years is going to be about how to reduce fossil fuel consumption and reduce building’s global warming pollution.”

One area undergoing change is in suburban development. Developers have historically built fast, cheap and in ways that forced dependence on the automobile. However, city planners and developers are now seeing the downside of suburban development and are seeking more sustain-

able approaches that will last long-term. SERA’s planners and urban designers are working on innovative concepts that will help reduce automobile dependency and create more livable communities.

Environmental issues have historically created a grim mood due to lack of interest in the topic by the very people who need to address it. Businesses were not interested in the environment because they perceived that there were such large costs associated with any change that needed to be done. However, with the growing interest in sustainable design, and with the realization that architectural firms such as SERA—as well as engineers, contractors and trades people—are finding solutions cost-effectively, there is now a much stronger sense that we are headed in the right direction. @