

PO Box 309 Stockbridge, MA 01262-0309

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Kripalu annex Q&A

why did Kripalu build a new annex?

Kripalu built the Annex in order to expand its programming and workshop offerings and reach the broadest range of people. This supports Kripalu's mission to teach the art and science of yoga to produce thriving in individuals and society. Kripalu's main Shadowbrook building was originally built in 1957 as a Jesuit monastery and designed with mostly dormitory and shared-bath housing options. The new guest rooms fill a former deficit in private room/private bath housing options and will minimize overflow to nearby accommodations during the busiest times, enabling guests to have the complete Kripalu experience.

what is "integrated design"?

"Integrated design" is a process by which multiple disciplines work together holistically to design and create a building. This differs from conventional building practices in which various specialized consultants (structural, mechanical, electrical, plumbing, landscape, etc.) each work independently, and often in isolation, under the general guidance of an architect.

what is "green" building?

"Green" refers to the practice of minimizing a building's impact on human health and the environment while increasing the efficiency by which it uses resources such as energy, water, and materials. Another term is "sustainable," which alludes to the general goal of the environmental movement to achieve a state in which human practices on Earth can continue indefinitely without leading to the decline or collapse of the Earth's ecological systems. Sustainable building reduces building impacts on human health and the environment during the building's life cycle through better location, design, construction, and operation.

what is the difference between "active green" and "passive green"?

Buildings with "passive green" solutions are structures that are fully integrated into the natural environment, maximizing building performance and minimizing energy consumption. In contrast, more well-known green building features such as solar panels and solar water-heating systems, geothermal energy, and wind-power systems are referred to as "active" green. Active green options tend to be technology intensive and expensive. Kripalu's new Annex incorporates many passive green elements into its design.



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how does the new Annex fit the principles of sustainable design?

Every effort was made to keep the building's energy requirements to a minimum. The building is extremely compact, with roughly 30 percent less overall volume than a typical building of its type, thus minimizing the area to heat, cool, and illuminate. Floor-to-ceiling windows provide daylight to reduce reliance on artificial light sources. Wherever possible, natural processes and passive systems have been employed to provide ventilation and mitigate heat loss in the winter and heat gain in the summer. Examples include:

- the building is heavily insulated and constructed largely of thermally massive concrete, a material that helps to reduce a building's susceptibility to exterior temperature changes;
- guest room windows are protected from direct sunlight (and thus unwanted heat gain) by individually operated wooden sliding exterior shading devices;
- windows are also glazed with an enamel that allows sunlight in while minimizing the heating effects of solar radiation;
- exaggerated overhangs keep the harsh rays of the summer sun from reaching or penetrating the windows of the connector yet allow the low winter sun to reach and warm the concrete inside the connector;
- the public corridors on the guest room levels have been tapered and aligned with
 the prevailing winds to facilitate the natural flow of air in spaces that would more
 typically be conditioned with energy-consuming mechanical systems (the tapered
 shape is intended to create a Venturi effect that will accelerate air and keep
 ventilation active).

A radiant floor system both heats and cools the building. The system is both more energy efficient than traditional forced-air systems and produces a more comfortable environment, reduces indoor air pollutants, eliminates the need for unsightly and space-consuming ductwork, and is virtually silent. Once the desired temperature is reached, relatively little energy is required to maintain the temperature. The fresh air system and chilled beam—a small internal radiant heating/cooling device in the wall—will maintain comfortable air by humidifying in the winter and dehumidifying in the summer.

Hot water for the building's system is drawn from the latent capacity of the existing boiler in the main building (Shadowbrook) and a sophisticated heat-recovery system has been employed to recycle heat from exhaust air and offset heating loads in the winter months. Passive heating/cooling units in each room allow guests to augment the slab system with additional warm or cool air. These passive units have no moving parts and are again virtually silent.



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Finally, within the building, earth-friendly materials are used wherever possible: exposed structural concrete on many walls, floors and ceilings; linoleum in the guest rooms; and recycled carpet in the hallways.

is the building "LEED" certified?

LEED (Leadership in Energy and Environmental Design) certification is a system of acknowledging and awarding buildings that demonstrate the use of sustainable building practices. Sponsored by the U.S. Green Building Council, the LEED rating system has been instrumental in publicizing the need for responsible green design in this country. LEED certification is entirely voluntary and since the process entails added costly administrative burdens (approximately \$65,000 for the paperwork and audits), Kripalu, like many sustainable building projects, chose to forego LEED and instead put their financial resources directly into the building.

who did the construction?

The Annex construction was completed through 90 percent competitive bidding and built with union labor. Where possible, Kripalu employed local contractors. Key Berkshire County contractors include:

Construction management by Barr & Barr Builders, Williamstown, Mass.

HVAC and plumbing by Adams Plumbing & Heating, Adams, Mass.

Electric by Comalli Electric (Comalli Group), Pittsfield, Mass.

Site work and road/parking lot by Maxymillian Technologies, Pittsfield, Mass.

Roof by D. J. Wooliver & Sons, Lanesborough, Mass.

Concrete provided by County Concrete Corp., Pittsfield, Mass.

The concrete superstructure was built by Francis Harvey & Sons, Worcester, Mass.

how is the Annex funded?

The Annex is part of an \$18-million campus improvement project funded in part through revenue and in part through the generosity of donors, including an anonymous challenge grant. A bond for the Annex is offered as a tax-free bond to investors through the State of Massachusetts.



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is there anything else that makes the Annex unique?

Kripalu Center staff wrote their intentions for Kripalu and the Annex at a groundbreaking ceremony in March of 2008. The intentions were buried in the foundations of the Annex and connector with Shadowbrook. Unbeknownst to Kripalu, ironworkers building the concrete structure followed with their own tradition of burying coins in concrete foundations for good luck and prosperity. Many of these workers were Russian-speaking exiles from the former Soviet Union, including Russians, Ukrainians, and Uzbekistanis.

what was the cost of the building?

The final cost was \$15.3 million, under the planned budget of \$15.5 million.

Adapted from the article "Building Sustainably: Kripalu's New Annex," by William Bryant.