







estled on a secluded lot bordered by conservation land and a variety of trees, this house feels like it's set in the rustic woods of Vermont rather than the suburbs northwest of Boston. It was the quiet location that originally captivated the homeowners, who envisioned building a sustainable, modernist-inspired home with open living spaces and lots of light.

To design the home, they contracted Marcus Gleysteen, principal of Cambridge-based Gleysteen Design, who conceived a LEED-certified house in which the formal and informal spaces are combined. (LEED, a building-industry designation, stands for Leadership in Energy and Environmental Design.)



"Most traditional houses have all of these formal rooms on the first floor that are only used a few times a year," says Gleysteen. "When you're building a sustainable home, it's important that all of the spaces can be used constantly. Here, the main level is essentially one big loft where the kitchen, dining, and living areas are integrated."

Gleysteen chose expansive, high-performance window walls and elevated clerestory windows to fill the house with maximum sunlight. He also designed a horizontal band of

windows at the top of the stairwell to bring light to the center of the house all day long.

The homeowners wanted the house to have artificial lighting that was comfortable, beautiful, and eco-friendly. Doreen Le May Madden, owner and principal designer of Belmont's Lux Lighting Design, devised a flexible scheme that incorporates energy-efficient LED ambient lights – which have the potential to last up to 50,000 hours. She augmented those with task-specific long-life down-

lights that are low-voltage. "People ofte think energy-efficient lighting is unattractive," says Le May Madden. "That's not true LED lighting can be very warm and bright.

Since the homeowners didn't want floor o table lamps to clutter the living space, Le May Madden made sure the recessed fixtures in the 14-to 16-foot-tall ceilings were capable of providing enough light for reading and all general tasks "We couldn't put LED lights in the ceilings, be cause they don't give you the throw and the

YOUR HOME KLIGHT



HITTING THE SPOT

IN ADDITION TO BEING VERY TALL, the two-story foyer (above) is exceptionally long and narrow, which presented a lighting challenge for Doreen Le May Madden, owner of Lux Lighting Design in Belmont. While two high pendant lamps shed light from above, more illumination was needed. She worked with the home's builder, Tom Grant of Norfolkbased Eco Structures, to install small LED lights in the floor. "The lights offer a grounding feeling. They are also an interesting focal point," says Le May Madden. On the stairways, similar lights were installed at the end of each step. "The lights create pathways at night when the rest of the house is dark," she says.

"People often think

ENERGY-EFFICIENT LIGHTING IS UNATTRACTIVE. THAT'S NOT TRUE. LED LIGHTING CAN BE VERY **WARM AND BRIGHT."**

- DOREEN LE MAY MADDEN, LUX LIGHTING DESIGN

punch that you need for such extremely high ceilings," says Le May Madden. "We used low-voltage MR16 lights that have an extremely long life." To soften the direct lighting, she selected LED accent lights that were inset into wall troughs around the room. A "smart" system lets the homeowners control each room's lighting via a touch screen. The system also has an energy-saving feature that ensures usage doesn't exceed certain levels.

Gleysteen points out the residence is not an "art house," but rather a practical home designed for how the family lives. Yet it's also beautiful and special. The sloped-roof home is made up of a series of connected rectangular forms, clad on the exterior in different colors and materials - from blue and yellow clapboard to corrugated aluminum - a nod to the vernacular architecture of New England, says Gleysteen. The interior features curved sculptural forms like a rounded half wall, painted bright yellow along the main stairwell, and dramatic attributes like the ceilings, which are clad in Douglas fir. The distinct contemporary architecture drove the lighting scheme, says Le May Madden. "We had to make sure the lights showcased the elements of the space and fit into the area without calling attention to themselves." Mission accomplished, according to the homeowners, who say the overall effect of both natural and artificial light is lovely and livable, all hours of the day.

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