

GREEN Design

By Margaret Nupp



BIO BUILDING: The award-winning Bio Building, certified LEED Silver, houses the maintenance fleet, environmentalist's offices, and quarantine areas for the Natural History Museum of the Adirondacks in Tupper Lake.

When Mike Phinney started his own architecture firm in 2003, he had no idea that ten years later, he would have a staff of 16, work in a landmark building of his own design, and be catering to some of the most exclusive resorts in the Northeast. His primary goal when forming Phinney Design Group was to introduce more people to “green building” when few people knew what that meant.

Phinney’s interest in green building began during his time as a student at RPI, when the school’s curriculum was focused on contemporary, urban design. Phinney, a Lake George native who spent much of his childhood outdoors skiing and playing football, wanted to explore the interface of architecture in nature; his thesis topic was “environmental awareness in architecture,” with most sources coming from Germany because green building was still in nascent stages in the United States.

In 1997, while working for an Albany-based architecture firm, Phinney was hired as the Project Designer and Project Architect for the new NYS Department of Environmental Conservation’s (DEC) headquarters building. This project, the first certified “green building” in New York State, was designed concurrently with the United States Green Building Council’s creation of the first LEED (Leadership in Energy and Environmental Design) rating system, and the building was used as a testing ground for many of the LEED guidelines before attaining LEED Silver certification.

Upon completion of this 500,000 square-foot building, Phinney desired a change of pace from large-scale projects. In 2002, he and his wife Marci bought land near Saratoga Springs, then designed and built their own green home. They incorporated a number of environmentally-conscious choices in hopes that it could be a model for others in the area looking to be more sustainable. Working mostly on word of mouth referrals, Phinney founded his

own firm, Phinney Design Group, in 2003. At first, new clients were specifically looking for “green” features in their new homes, but over time, clients came based on the reputation of the firm to build high-quality, aesthetically-pleasing homes.

“It’s a goal of mine to make environmentally-friendly architecture that’s beautiful,” says Phinney. “I don’t want people to look at one of our homes and immediately think, That must be an eco-friendly house. I want them to think the house is beautiful and then be pleasantly surprised to discover that it is also green. We try to bridge art and beauty with sustainable ideals.”

Some of Phinney’s first clients had respiratory conditions and chemical sensitivities, so he worked with them to design well-ventilated, low-humidity homes that could help decrease symptoms of asthma and allergies. In 2004, Phinney Design Group designed the first “Health Home” in the Northeast certified by the American Lung Association, and completed another in 2006.

Phinney Design Group has also designed two LEED certified houses: The first, a barn-style home located within the city of Saratoga Springs, received LEED Platinum certification through its passive heating and cooling strategies, solar panels & hot water system, rain water harvesting, drought tolerant landscaping, and use of environmentally preferable products. The second, a LEED Silver lake house in suburban Saratoga County, includes cherry wood trim which was harvested on site and an abundance of lake vista views.

Phinney believes there are three categories of green design: Common Sense measures do not add additional costs. For design of a new home, this may be as simple as orienting the home on an east-west axis with living spaces on the south side in order to take advantage of natural light and heat.

Minimal Investment measures generally pay themselves off in 1-7 years. These decisions—such as using spray foam insulation in the walls and attic, higher efficiency heating and cooling systems, higher performance windows and doors—add upfront cost, but cut energy costs over a number of years.

Major Investment measures are usually done for moral or ethical reasons related to the environment and may have a longer payback than 7 years. These may include photovoltaic solar panels, geothermal heating and cooling, and greater commitment to material origination and composition.

“Once they learn about the benefits of these techniques,” Phinney explains, “About 80% of our customers go for it to decrease their maintenance and operational costs.”

Although Phinney Design Group has designed many custom homes, the firm’s “signature” green building is the Bio Building in Tupper Lake. Built on the campus of The Wild Center/Natural History Museum of the Adirondacks, the Bio Building houses the biologists that care for the museum’s wildlife, as well as providing office space, a maintenance shop, and storage space. The building was designed to reflect the museum’s dedication to environmental education.

The Natural History Museum attained LEED Silver certification in 2008, becoming the first LEED-certified building in the Adirondack Park and the first LEED-certified museum in New York State, and won an Adirondack Park Design in Excellence award in April 2013. The museum highlights the “green” aspects of the building in its educational programming, offering a complete staff-led tour of its environmentally-conscious systems. The walking tour includes explanation of the

site’s 190 solar panels, renewable heat system, recycled flooring, locally-sourced building materials, green roof, and multiple water-efficient systems: rainwater cistern, grey water usage, and storm-water detention ponds.

With so much experience in green design, Phinney Design Group incorporates certain green elements into their projects as a standard. This is the case for The Sagamore Resort, on Lake George in Bolton Landing. When PDG first started working for The Sagamore, the upgrades were mostly aesthetic to maintain the historic character of the resort hotel. Over time, PDG has also incorporated more sustainable building products, such as energy efficient heating/cooling systems, water-reducing fixtures, high levels of insulation (where often there was none), energy efficient coated glass, and incorporation of occupancy sensors in certain rooms. Many of these “upgrades” add minimal cost during the renovations, but can yield high operational returns on investment; projects typically can yield a 30%-40% reduction in operation and maintenance costs.

Although Phinney Design Group has a diverse portfolio of projects that aim primarily to meet the needs of their clients, the one thread that ties their various projects together is the care taken to be conscious of the environment while designing buildings that are both beautiful and functional. ⚙️

PRIVATE RESIDENCE: Located within the city of Saratoga Springs, this barn-inspired home obtained LEED Platinum certification by incorporating sustainable features such as a photovoltaic array, solar hot water, rain water harvesting, and drought tolerant landscaping.

