



## High-Profile: GREEN FACILITIES DEVELOPMENT NEWS



# Practice What You Preach

## How Margulies Perruzzi Architects Created its Own LEED Silver Certified Office

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Margulies Perruzzi Architects (MPA) has designed many green and LEED certified projects over its 20-year history. With this commitment to green building practices, it made perfect sense that when MPA needed new office space of its own, the firm thought a great deal about sustainable design. For its own office renovation, MPA ultimately earned LEED Silver certification under the LEED for Commercial Interiors rating system. More importantly, the firm's designers gained valuable

insight into the choices and decisions that clients need to make throughout their own projects. Here, the firm outlines, by environmental category, the various sustainable design strategies incorporated into the project.

Selecting a site in an existing urban neighborhood with established infrastructure and public transportation has far less impact on the environment than locating a new building in a previously undeveloped area. For MPA's office relocation, building location was a pivotal part of the decision-making process. MPA selected space on the fourth floor of the newly renovated Boston Children's Museum Building overlooking the Fort Point Channel in Boston.

Certified as LEED Gold, the base building renovation featured a green roof and reduced storm water contamination and runoff through the use of on-site storage and reuse of storm water for landscape irrigation and toilet flushing. The building is within walking distance of a multitude of services, including restaurants, subway and commuter rails and boats, and multiple bus lines, and does not provide parking on the premises, encouraging a reduction in personal automobile use. The close proximity to mass transit and other urban amenities qualified the project for "exemplary performance."

It is reported that 40% of the total solid waste in the United States is created by construction and demolition waste. During construction of MPA's new offices, 80% of construction waste was recycled rather than sent to landfills.

During the design process, a conscious effort was made to use products with recycled and recyclable content, such as drywall, furniture and carpet, as well as regional materials manufactured within

a 500-mile radius, which supports the regional economy and reduces transportation costs and environmental impacts associated with delivery. MPA was able to specify that 25% of all materials had recycled content, and 79% of all materials were obtained within 500 miles. Half of the wood used in the construction process was produced in accordance with the Forest Stewardship Council's principles and criteria for responsible forest management, and 70% of the furniture was reused from the firm's previous space.

The US Department of Energy reports that commercial buildings consume 37% of the energy and 68% of the electricity produced in the United States every year. To optimize energy performance, more than 90% of the computers, kitchen appliances, and office equipment chosen for



Photos of the lobby, workstations, and open floor. Photo credits: Warren Patterson Photography



the office was Energy Star rated, reducing energy consumption significantly and resulting in less greenhouse gas emissions that contribute to global warming.

Before construction began on MPA's new offices, the contractor, Structure Tone, developed an Indoor Air Quality management plan for the duration of construction. Strategies included HVAC protection and cleaning, temporary barriers to minimize contamination to other spaces, review of construction material toxicity levels, and construction sequencing to minimize contamination of materials. All of these strategies ensured the comfort and health of both the construction workers and the building tenants during the construction process.

When selecting materials and furniture during the design process, special consideration was given to choosing products with a reduced quantity of indoor air contaminants. Low-emitting materials evaluated included carpets, paints, adhesives, sealants, and composite wood adhesives that have low or no VOCs, and furniture that is Green Guard certified. More than 90% of occupants were given task light-

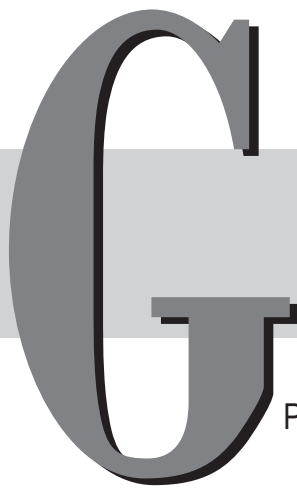
ing to suit individual task needs and reduce overall required lighting, and a lighting control system was employed so that lights would be on only during business hours.

MPA earned innovation points for exemplary performance by going above and beyond the minimum standards in the categories of alternative transportation, regionally manufactured materials, and reuse of furniture systems and seating. At the

conclusion of the project the team created a brochure and a video presentation that is prominently featured on a plasma screen in the office lobby, providing visual tools to educate clients on green practices that result in a more sustainable, and perhaps LEED certified, space.

With an understanding of how green design can impact the environment and the bottom line, MPA approaches every project with the goal of incorporating some sustainable measures. After completing its own LEED Silver-certified office project, MPA has acquired first-hand knowledge and experience to better serve its clients, whether the client is interested in pursuing LEED certification or simply making upgrades to an existing building. MPA's commitment to green building practices, dedicated recycling, and continuing education in sustainable design, has inspired its employees to operate in a more environmentally thoughtful manner.

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