Paladino

Facts

Description:
441,559 SF high rise hotel building

Location:
Arlington, VA

Project Owner:
Marriott International

Architect:
Cooper Cary

Completion Date:
2010

Objective:
Optimize environmental and energy performance of a signature hotel property

Results

LEED Gold

POTOMAC YARD MARRIOTT RENAISSANCE AND RESIDENCE INN

The Potomac Yard Marriott Renaissance and Residence Inn is a 625 room high rise hotel building located at the end of Potomac Yard, a rail redevelopment project in Arlington, VA. The project is unique in that it is one of a very few Marriott hotels in which two distinct brands share common amenity, service and support spaces, all served from a single central utility plant. In alignment with its corporate commitment to build and operate green hotels, Marriott International sought to achieve a LEED® Silver rating for the complex, making them the first hotels in Arlington to earn this distinction.

Paladino Approach

Paladino and Company acted as the sustainable design consultant to the owner and project team throughout the design and construction process, facilitating the LEED certification process and serving as the Commissioning (Cx) Authority for the project. The project satisfies LEED prerequisite levels of performance for energy efficiency, ozone protection, indoor air quality, prudent site development protection, and space allowances for supporting occupant recycling programs. In addition to these important prerequisites, the project employs a variety of other features that support the environmental goals of the client.

Sustainability Strategy

Site

Several site and building attributes of the project will make positive contributions to the existing urban environment. The site and project is part of a major urban redevelopment of an extinct industrial rail road yard. Located in a highly dense urban commercial area, the project is less than one mile from WMATA Crystal City Metro station and is also served by numerous bus lines. Covered bike storage spaces for employees and visitors, and showers and changing rooms support biking to work. In addition, to promote and encourage the use of efficient vehicles and commuting options, the parking garage has dedicated parking spots in desirable locations for low emitting/fuel efficient vehicles and carpool/vanpool vehicles.

110 Union St. Suite 210
Seattle, WA 98101-2028
info@paladinoandco.com

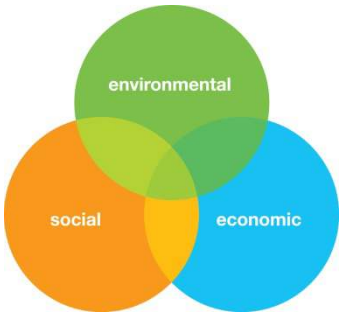
p. 206.522.7600
f. 206.522.7666

Paladino

About Paladino

Paladino is an industry-leading green building consulting firm providing sustainability expertise over a wide range of building and business issues. We work with high aspiration organizations of all sizes to develop advanced green building strategies for both new and existing construction.

A pioneer of the green building movement and one of the original creators of the LEED green building rating system, Paladino's esteemed clients include ConAgra Foods, Starbucks, PNC Financial Services, Microsoft, Verizon Wireless, Corporate Office Properties Trust and many more. At Paladino, we help our clients create business value by optimizing human, environmental and financial performance. Our customized technical approaches center on the unique concept of abundance as a driving force for organizational transformation. To learn more, visit **www.paladinoandco.com**.



Paladino's abundance framework (people, planet, prosperity)

Parking is located entirely underground and is distributed between three levels in the basement. The elimination of a parking lot reduces the building's contribution to heat island effect on the local micro-climate.

In order to reduce the impact of site development, all site water runoff is directed into a combination of on-site filtration systems, thereby treating the stormwater before it is released into the local watershed.

Energy Efficiency

The building envelope and the heating, ventilation, and air conditioning (HVAC) systems were designed with premium energy efficiency as driving design criteria. Key energy efficiency features including high-efficiency HVAC core equipment; integrated air and water heat recovery and free cooling system; efficient lighting design; and a direct digital control central building automation, management and monitoring system. The building is designed to attain at least 16% greater energy performance savings than the ASHRAE 90.1-2004 energy standard. In addition, the primary air conditioning system employs a chlorine – free refrigerant, and aggressive energy efficiency measures will reduce the amount of greenhouse gases that are released into the atmosphere as a byproduct of power generation and fuel combustion.

Materials and Resources

Throughout design and construction, the team maintained a focus on choosing environmentally friendly materials and employing waste management practices. Building materials such as structural steel and gypsum board were specified to contain highest recycled content available, which reduces the amount of natural resources and energy used to supply the materials. A great majority of the building materials were sourced from local manufacturers and suppliers located within 500 miles from project site, reducing transportation energy while supporting the local economy.

More than 75% of waste from the construction process was sorted and recycled, diverting as much as possible from landfills and reducing the burden of local disposal facilities.

Indoor Environment Quality

Strategies were implemented to maintain good indoor environmental quality and promote healthy and comfortable space for both employees and visitors both during and after construction, including the use of duct seals, walk-off mats and low VOC paints and carpets. Inside the building, technologies and strategies to monitor proper ventilation such as air flow monitoring and carbon dioxide monitoring have been implemented to ensure proper ventilation is provided at all periods.

Results

- LEED NC Gold rating

Paladino Role

- Green building consulting
- Commissioning authority

110 Union St. Suite 210
Seattle, WA 98101-2028
info@paladinoandco.com

p. 206.522.7600
f. 206.522.7666