

Macallen Building Condominiums

Location: Boston, MA Architect: Office dA, Burt Hill

Overview

The Macallen Building, a 140-unit condominium building in South Boston, was designed to incorporate green design as a way of marketing a green lifestyle while at the same time increasing revenue from the project. Located in a primarily industrial area between highways, train and bus routes, and an international airport, the site presented challenges for the project team tackling air and noise pollution, the urban heat island effect, and creating local green space.

Some of the green building features include innovative technologies that will save over 600,000 gallons of water annually while consuming 30% less electricity than a conventional building. This dedication to sustainable initiatives produces many benefits for everyone involved in the project: developer, architects, engineers, and residents alike.

Jury Comments:

"We appreciate the urban context. There was a holistic case to be made here; quality of urban environmental contributor."

– **Marvin Malecha**

"The end of the building has a vertical dimension that relates to the city." – **Glenn Murcutt**

"The terracing of the form gives it a fairly radical building mass in the city." – **Susan Rodriguez**

"It's easier to integrate sustainability measures when you have easy site conditions to being with. What was especially impressive about this project was that it began with very difficult circumstances - starting with a tight, transitional site and significant challenges with local air and noise pollution. This project paid particular attention to materials, including a unique staggered truss structural system that allowed for less material while providing taller and more open spaces that were beneficial for daylighting and natural ventilation." – **Gail Brager**

SUSTAINABILITY SNAPSHOT

- Percent of total building area that is daylight: **56**
- Percent of building that can be ventilated or cooled with operable windows: **48**
- Precipitation managed on site: **100**
- EPA Energy Reduction:
- Percent total energy savings: **15**
- Lighting Load after Controls (W/sf): **1**



Sustainable Design Intent & Innovation

This LEED Gold project has a sloped green roof that controls stormwater drainage, filters pollutants and carbon dioxide out of the air, reduces heating and cooling loads, reduces the project's contribution to the urban heat-island effect, and provides an ecosystem for wildlife. A 20,000-ft² outdoor terrace incorporated into the building provides similar benefits as the green roof. In addition, a covered garage was integrated into the building to reduce overall square footage and contribution to the urban heat-island effect and stormwater runoff.

The building is well insulated and features several energy-saving technologies, including heat-recovery ventilation and water-source heat pumps. No potable water is used for irrigation on the site. Instead, rainwater and air-conditioner condensate are collected and stored for use. In addition, the project was awarded a LEED innovation point for the use of a system that treats cooling tower blowdown water without the use of chemicals for use in irrigation.

Primary Design Team Members

Burt Hill
Monica Ponce de Leon
Pappas Properties, Inc.
Michael Blier
Bovis Lend Lease
Simpson Gumpertz & Heger
Falk Associates, Inc.
C3
Ripman Lighting Consultants, Inc.
Acentech, Inc.
Demand Management Institute, Inc.

Full project profile:

www.aiatopten.org/hpb/overview.cfm?ProjectID=1050

Burt Hill
(Primary Contact)
Architect of record and MEP engineer
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