

PARTY WALLS

"ONE MAN'S CEILING
IS ANOTHER MAN'S FLOOR"

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A bimonthly update on Steven Winter Associates, Inc.'s work in the realm of multifamily housing

Newest (and Largest!) Multifamily Energy Star Building

An Open House was held on January 14 at WHEDCo's Intervale Green, to demonstrate the green and energy efficient features of this new 128-unit mixed-use affordable rental building in the Bronx. Located at 1330 Intervale Ave, the building sits on what used to be an abandoned lot, where President Carter once visited and brought attention to the urban blight and devastation of the Bronx.



President Carter's Visit

WHEDCo (Women's Housing and Economic Development Corporation) was determined to build beautiful, healthy homes for low-income and formerly homeless families in this neighborhood. To make these homes truly affordable for the tenants, the buildings needed to be durable, easy to maintain and energy efficient. With the increasing interest in sustainable design, using green building materials was also a priority. This building not only meets the criteria of the **Enterprise Green Communities** program, it will also earn the **EPA's** Energy Star label, making it the 4th Energy Star Multifamily high-rise in the nation and the largest multifamily building to receive this label to date.

In 2005, WHEDCo partnered with SWA and **NYSERDA** to participate in the Energy Star Multifamily Pilot, which awarded Energy Star labels to building designs that demonstrated at least 20% energy cost savings when compared to an ASHRAE 90.1-2004 compliant building. SWA worked with the design team to make recommendations that would increase the performance of the building and reduce the utility bills for the tenants. Recommendations included measures such as installing continuous rigid insulation between the brick façade and masonry block in addition to fiberglass insulation between studs on the interior. Four inches of polyisocyanurate rigid insulation on the roof, exterior rigid insulation on foundation walls, proper air-sealing techniques, and double-pane, low-E, argon windows were all incorporated to provide a high performance envelope that would reduce the heating needs of the building.

To reduce the heating load even further, the design team approached the **Department of Buildings** to request a variance to allow lower exhaust ventilation rates at Intervale Green. The code at the time required significant over-ventilation, which forced heated air to be exhausted out of the building almost immediately. Lower rates were proposed that are supported by ASHRAE 62.2 for good indoor air quality and which are being adopted by the new building code.

Approval of the lower ventilation rates reduced the heating load of the building by about 30%, reducing the number of boilers required, while still providing the indoor air exchange rate needed. Additional savings were achieved since the rooftop exhaust fans will require less power to provide these lower rates. Significant savings were also achieved by using CO sensors on the garage ventilation system, so that these exhaust fans operate only when needed, rather than all day.

Other energy efficient measures included 85% efficient boilers and hot water heaters, low-flow faucets and showerheads, pin-type fluorescent lighting, bi-level lighting in the stairs, Energy Star refrigerators and clothes washers, and occupancy sensors in the common areas and offices. Green features include a green roof system, wheatboard kitchen cabinets, low-VOC paints and sealants, and recycled content flooring.

The 46-unit building adjacent to Intervale Green, Louis Niñé House, boasts similar energy efficient measures, and provides each tenant with an Energy Star air conditioner. Although it did not receive the Energy Star label due to the code required ventilation rates, this building will also achieve significant energy cost savings over a traditional building.

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WHEDCO Intervale Green



Sustainable Kitchen Design