

Urbanica's 226-232 Highland Street E+ Townhouses

September 26, 2014 - Spotlights

226 - 232 Highland E+ Townhouses consists 4 three-story residential units in Roxbury neighborhood of the city. The project is part of the city of Boston's Energy Plus (E+) Green Building Program-a pilot initiative to develop energy positive sustainable housing in emerging neighborhoods. Urbanica and Interface Studio Architects were selected through a design competition organized by the Boston Redevelopment Authority.

The homes are LEED for Homes Platinum Certified and achieved Net Energy Positive HERS ratings between (-6) and (-8). The building envelope is designed to be thermally robust: double-stud wall construction, high insulation levels, prevention of air infiltration at seams and transitions and the installation of triple-glazed high performance windows all help to reduce heating and cooling energy use. Each home is equipped with Solar Photovoltaic panels and a solar thermal panel to provide electricity and hot water for the house. The energy output from the Solar Photovoltaic panels is targeted to exceed the demands, with surplus to be feed back into the grid. The project utilizes high efficiency Heat Recovery Ventilator for optimal air exchange and ductless mini split systems to provide heating and cooling. Hard surface flooring promotes an environment with fewer respiratory irritants than a typical home. Interior finishes include low VOC paints and FSC certified cabinetry. All appliances are Energy Star rated. The lush and verdant landscape design uses native New England plant types that are low maintenance and drought tolerant.

Efficient framing strategies helped to reduce construction waste during the build process. Low flow plumbing fixtures and drought tolerant landscaping minimize overall water consumption. Permeable paving and site infiltration strategies also help lessen the strain on local municipal water systems. A comprehensive public awareness program through website, signage, presentation and public tours helped educate the public at large on sustainable green building strategies.

226-232 Highland St. E+ Townhouses demonstrate that the future of sustainable design can be contextual, performative and aesthetically pleasing. The project has been awarded the 2014 Boston Society of Architect (BSA) Housing Design Award and the 2014 BSA Honor Award in Design Excellence. Urbanica executed this project from all angles, from the start of the RFP process to construction completion; from sales and marketing to post occupancy monitoring.

Project Team Included: Developer: Urbanica, Inc

Architect of Record: Urbanica Design

Design Architect: Interface Studio Architects, LLC Structural Engineer: DM Berg Consultants, PC Civil Engineer/Surveyor: C.L.G. Associates

MEP: Engineering Design Build, Inc Solar Consultant: Transformation Solar Energy Monitoring Consultant: Embue

HERS Rater/LEED Provider: Conservation Services Group

General Contractor: Urbanica Construction

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