

From Brownfields to Green Certified



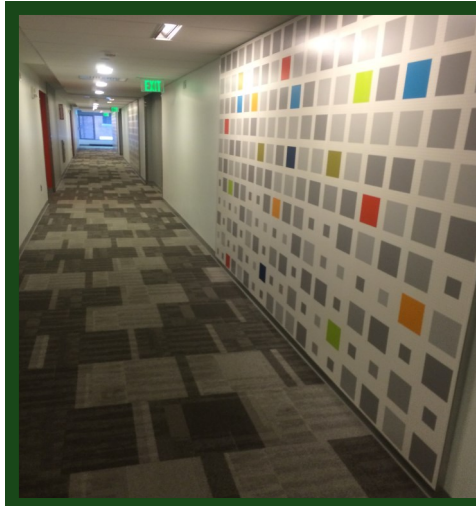
Reclaiming abandoned industrial brownfield sites provides job opportunities, increases the

local tax base, and enhances the quality of life for neighborhood residents and improves the environment. Soil and groundwater contamination was remediated, clearing the way for WPI's newest residence, Faraday Hall. This 258-bed, 89,000 sq. ft., apartment-style student residence features four-person apartments with full kitchens, living rooms,



and compartmentalized bathrooms. It also features technology suites and full wireless access.

Faraday Hall is WPI's fourth LEED-certified building and its second residence hall to achieve that distinction.



Sustainability Tour

FARADAY HALL



For more information about sustainability at WPI, visit:

<http://www.wpi.edu/about/sustainability.html>



1 - Direct Views to the Outdoors in Public Areas

Access to daylight inside the building creates a healthier and more comfortable environment for building occupants. Daylighting provides high-quality light while reducing energy use for lighting and cooling.



2 - Water Conserving Irrigation

The grounds are irrigated by a water conserving irrigation system combined with drip irrigation that reduces potable water use by at least 50%. The system has a rain sensor, and it uses fewer sprinkler heads, thus using less materials.

3 - Interior Sunshades

The interior sunshade design provides improved occupant protection from glare and reduces reflection problems on computer screens. Light sensors are used to automatically adjust the shades to sun and sky conditions, increasing the use of natural light, reducing solar heat gain, and decreasing air conditioning loads.

4- LED Lighting and Lighting Controls

The linear light system in the lobby and corridors provides energy-efficiency and durability, and the track lighting uses LED technology for even more efficiency and long life. Daylight sensors increase energy savings by automatically turning off or dimming lights when daylight is sufficient. Occupancy sensors turn lights on or off depending upon whether the area is occupied.

5 - Paver Lighting

Lighting in the stone paver entrances is powered by solar energy and leaves no carbon footprint. It is designed to last longer than ordinary solar lights by using LED technology, extending the life of the lights 5 times over.

6 - Bike Racks and Fix-It Station

A bike rack made of recycled steel and bike fix-it station are available to increase students transportation options.

Throughout Faraday Hall - - Recycled Content and Recycled Construction Waste

The steel and furniture contain recycled content. Over 90% of construction debris was recycled or diverted to salvage, and over 50% of wood used on the project is Forest Stewardship Council certified wood.

Heating and Cooling Efficiency

A cooling tower with “maglev” water cooled chillers and gas-fired condensing boilers feed a valance distribution system that sends the hot or chilled water to passively heat or cool space without the use of fans. Energy recovery units on the rooftop collect latent heat from exhaust air and process it to ventilation air, lowering the building’s energy demand.



Eco-Friendly Bathrooms

Faucets flow at a decreased rate of 1.5 gallons per minute, helping to preserve a valuable resource and reduce utility costs.

Toilet flushometers use only 1.28 gallons per flush, lower than the 1.6 gallons required for LEED certification. These units are made of recycled materials and are themselves 100% recyclable!

Shower heads are made of recycled metal and plated with an environmentally-friendly chroming process.

