The Arnold Arboretum supports conservation initiatives to promote healthy environments both locally and around the world, and with its new research building at Weld Hill, this commitment finds expression in bricks and mortar. In January 2012, the Green Building Certification Institute certified the Arboretum’s Weld Hill Research Building as LEED® Gold in assessments established by the US Green Building Council. Though this recognition marks a first for the Arboretum, it joins good company at Harvard, where Green Building Standards adopted in 2009 have resulted in scores of recent LEED-certified building projects and renovations.

Opened in January 2011, the Arboretum’s research and administration facility at Weld Hill was designed and constructed to LEED (Leadership in Energy and Environmental Design) specifications, incorporating many strategies that minimize the building’s impact on the environment and its surrounding neighborhood. Chief among its energy-saving technologies is a geothermal heat exchange system, which employs 88 closed-loop wells to draw energy from the earth to both heat and cool the entire facility. Other efficiencies include cellulose insulation, power-saving lights with sensors that automatically turn off when a room is unoccupied, and an extensive use of windows and skylights to leverage natural lighting. These features contribute to more than 25% savings in consumption.

The Weld Hill Research Building further contributes to sustainability through multiple systems for water conservation. Water-saving technologies used in its interior, such as dual-flush toilets and low-flow faucets, complement a number of strategies devised to reduce water use in its exterior spaces. The landscape immediately surrounding the building consists mainly of a “cosmopolitan meadow mix,” a selection of hardy perennials developed by Arboretum Senior Scientist Peter Del Tredici, which requires minimal maintenance and no irrigation. This attractive and sustainable alternative to grass reduces typical water requirements by half.

LEED certification also acknowledges the Arboretum’s choice of “green” construction methods, such as clearing only the land required for construction and employing on-site soil management and erosion control techniques. On the parcel’s eastern border adjacent to Walter Street, the gently sloping ground is shaped by soil displaced from the building site, diverting tons of construction waste that otherwise would have been sent to landfills. The rolling landscape at Weld Hill, featuring preserved stands of native oaks and newly-planted white pines (Pinus strobus) along Walter Street, provides a lush green backdrop for the Arboretum’s first green building.