

The Pier Cove Cottage

Following the long, winding, narrow drive back through the large parcel situated between Lake Michigan and a nature conservancy, one would certainly understand the owners' desire to design and build a sustainable and environmentally conscious home at the end of the road.

In its beautiful, natural setting, it is only appropriate that the Pier Cove Cottage puts cutting edge LEED building techniques into practice. For starters, a very small portion of the large parcel was used as the building site, while the rest of the parcel was left in its natural state. Then, any trees that did have to be cleared from the site were ground and reused as wood chips along the drive.

Also in regards to the site, a unique green landscaping plan was designed for this home from the beginning stages. This plan included the limitation of turf grass with native, no mow grasses and wild-flower mixes. It also called for indigenous landscape plants and a highly efficient irrigation system.

LEED™ Facts

LEED for Homes

Certification Awarded: July, 2009

Silver **77.5***

Innovation in Design 5/11

Location & Linkages 4/10

Sustainable Sites 14/22

Water Efficiency 7/15

Energy & Atmosphere 24/38

Materials & Resources 11.5/16

Indoor Environmental Quality 11/21

Awareness & Education 1/3

*Out of 136 possible points.

Based on the home size adjustment factor, the point total thresholds for certification for this home were:

Certified: 57.5	Gold: 87.5
Silver: 72.5	Platinum: 102.5

To take the high performance and sustainable features inside, one key component of this home is the horizontal loop geothermal system, which was installed for the heating and cooling of the home. It is a split, zoned system, with the geothermal creating radiant heat for the floors, as well as forced air (with very fine air filtration) for supplemental heating ventilation and cooling. The hot water for the house is also heated with the geothermal system.

A few of the additional LEED features in the house included the use of high performance insulation, numerous air sealing techniques, efficient and water-saving plumbing fixtures, energy saving electrical fixtures, durable white oak floors, as well as an indoor moisture management plan and advanced ventilation, using ducted energy recovery ventilators as bath fans.

LEED certification is as much about design and preparation as it is the implementation of various systems and building specifications, so efficient material planning and usage on the jobsite was key, as well as the construction waste recycling system that was employed during construction. This resourceful planning lead to cost savings for the homeowners and a sustainable and efficient home that fits in perfectly with its natural setting.



Key LEED Feature



Energy & Atmosphere

Horizontal loop geothermal system.

