UNDERSTANDING

Green Building/ Stretch Code

Habitat for Humanity Housing-Amherst

Brightly daylit, south-facing rooms, super-insulated envelope, energy-efficient, economical point-source heating units, energy-star appliances, super-insulated envelope and point source heating provide an economical alternative for affordable housing.

What are the objectives of green building codes, such as "the stretch code"?

To save money and improve the environment by reducing waste of energy, water, and land in building siting, design, construction, de-construction, and operation. Some codes also seek to improve occupant health by proscribing types of equipment and materials allowed in construction and operation of buildings.

Why do we need green building codes and standards?

Because buildings unnecessarily use 70% of electricity consumed in the U.S., 39% of energy, 40% of raw materials, and 12% of all potable water, wasting building owners billions of dollars each year. Buildings unnecessarily produce 39% of all carbon dioxide (CO2) emissions and 30% of all waste (136 million tons annually) because they are poorly sited, designed, built and even torn down. In the past planners, architects, designers and builders did not always factor use of resources into building design and construction. As a result, most existing buildings waste a lot of energy which translates into wasting a lot of money. We need green building codes and standards to save money and limited natural resources and to achieve our vision of a sustainable region.

How do green building codes, including the stretch code, work?

Green building codes and standards work by requiring building siting, design, construction and de-construction to achieve whatever level of resource efficiency a community wants. In Massachusetts, all new construction must conform to the state building code. In 2008

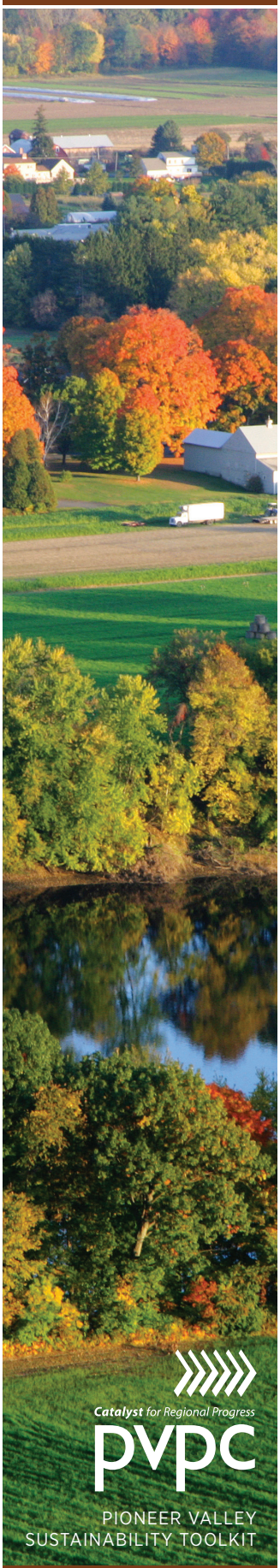
when Massachusetts adopted the Green Communities Act, the Commonwealth committed itself to updating the state building code in accordance with the International Energy Conservation Code (IECC) which is usually updated every three years. This commitment will ensure a much greater level of new building efficiency throughout Massachusetts. At the same time, the Massachusetts Legislature enabled cities and towns to adopt an even more energy efficient building code, called "the stretch code". Adopting the stretch code is optional, but it is one of the five requirements of Green Communities designation. The stretch code is called the stretch code because it is a "stretch" with respect to building efficiency. A building built to the stretch code will be 15% more energy efficient than one built to the base code. Building codes and standards are just like any other local government regulation. They represent a community's values and they tell builders how to build. "Green" or "sustainable" buildings use key resources like energy, water, materials, and land more efficiently. With more natural light and better air quality, green buildings typically contribute to improved employee and student health, comfort, and productivity. And as stated, they use less energy and other essential resources, thereby reducing wasteful spending. Towns are advised to seek adoption of the Stretch Code as a general bylaw through a vote of Town Meeting. Cities may adopt the stretch code through a vote of city council.

DID YOU KNOW...

Springfield was the first city in Massachusetts to adopt the Stretch Code.

(Source: www.mass.gov/eoeea)

In addition to the stretch code in Massachusetts the other green building standard most used is the Leadership in Energy and Environmental Design (LEED) System, developed by the United States Green Building Council. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. To adopt a requirement of LEED certification for all new buildings, Towns are advised to seek adoption of LEED certification as a general bylaw through a vote of Town Meeting and Cities are advised to seek adoption of through a vote of the city council.

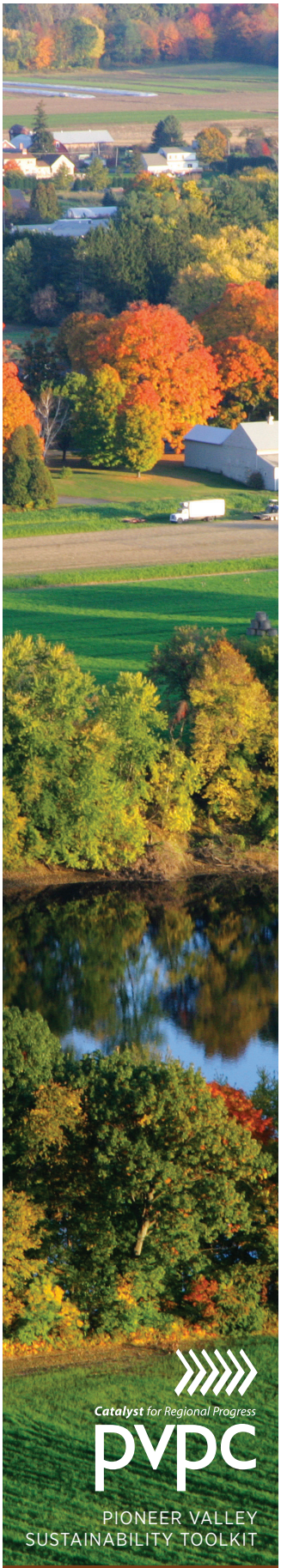


EXAMPLES OF GREEN BUILDING IN THE PIONEER VALLEY

Hampshire College – The Ken Burns Wing, LEED certified

New 6,700 square foot addition to the Jerome Liebling Center for Film, Photography and Video, a part of the Arts Complex at Hampshire College.

Interior Design for the Ken Burns Wing of the Jerome Liebling Center included selection of interior finishes, furnishings, and lighting. Since it is a LEED registered project, special care was taken in making these selections to ensure that products were low in VOC's and that lighting was as efficient as possible. Post-construction graphic design services were also provided.



EXAMPLES OF GREEN BUILDING CODE IN THE PIONEER VALLEY

As of the end of 2010, six communities in the Pioneer Valley had adopted the stretch code and 12 are working on adoption (42%).

ADDITIONAL LINKS:

www.mass.gov/energy/greencommunities detailed resources on adopting the stretch code, cash flow analysis, commercial case studies and detailed FAQ

A model bylaw or strategy is included in the Pioneer Valley Sustainability Toolkit.

FOR MORE INFORMATION, PLEASE CONTACT

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