by DeWitt Jones
Boston Community Capital

Green Development:
Improving the Health of Residents and Neighborhoods

David Shipler, author of *The Working Poor: Invisible in America*, recounts a New England story. The mother of an eight-year-old asthmatic boy took him to Boston Medical Center, where doctors gave him inhalers and steroids and urged that environmental changes be made to his home. But the mother ended up bringing the boy back often, missing work and risking her job. The situation didn't turn around until a hospital attorney reinforced the mother's demands that the landlord fix her apartment's mold-producing leaky pipe and discard the carpet full of dust mites.

It doesn't need to be that way. The "green" movement—designing buildings for indoor air quality, energy efficiency, water conservation, and the like—is starting to take hold. The Erie-Ellington homes that Codman Square Neighborhood Development Corporation helped build in 2000, for example, provided 50 green rental units that reduced asthma and other common problems. Cambridge, Mass.-based GreenVillage, a participant in the U.S. Department of Energy Building America Program, designed the development. When GreenVillage's research affiliate, Hickory Consortium, conducted subsequent interviews, it found that 100 percent of the residents who had asthma prior to moving in, had seen improvement.

Community-development financial intermediary Boston Community Capital, which finances projects similar to Erie-Ellington, is one group taking a green approach to funding. BCC's mission is to invest in projects that provide affordable housing, good jobs, needed goods and services, and new opportunities for people who have been locked out of the economic mainstream. Green approaches can boost all four goals.

Energy efficient homes on Ellington Street in the Erie-Ellington area of Dorchester built in 2000. *Photographs in this article are from the Heart of the City database, www.heartofcity.info.*

Erie-Ellington Playground on Erie Street in Dorchester.

Energy efficient homes on Ellington Street.

But what about cost? Considering the cost to society and property owners of cheaply constructed or run-down housing, some added expense on the front end would seem reasonable. But the remarkable fact is that green design doesn't have to be much more expensive. Once green standards are refined, comparisons of green building and conventional building will be more precise, but credible research that included Erie-Ellington showed that total development costs for the projects in the study were on average only 2 percent higher than conventional development costs.[1]

Why Green?

Organizations serving low-income communities do not have to be experts in environmental, engineering, technology, regulatory, or energy issues to be aware of the consequences of not using green principles. Poor environmental, public-health, and design policies have clearly placed an extra burden on low-income individuals. Fortunately, good design can address not just the poor ventilation, mold, and moisture that cause respiratory disease, but other concerns as well.

For example, design that places safe, well-maintained playgrounds and parks in convenient walking distance of homes and schools can improve a community's quality of life while diminishing the obesity epidemic among young people.

Similarly, business construction that limits the exposure of workers and neighborhoods to toxic materials can reduce future societal costs. Jobs in nail salons, floor refinishing, and car painting are often entry points into the economy for immigrants, and design can make them safer.

BCC and its partners in the Green Building Production Network (New Ecology, Tellus Institute, Massachusetts Association of Community Development Corporations, and Local Initiatives Support Corporation) want to help community-development corporations benefit from green trends. Increasingly accepted as standard in the market, green practices can reduce chronic poor health and the absenteeism that undermine advancement in school and work. They can also save energy and heating costs for low-income people.

Many sustainable technologies have proved effective and economical, and policymakers are catching on. For example, Massachusetts now uses sustainable-development principles to evaluate projects it funds. Even developers not funded by the state must meet higher standards for energy efficiency and "healthy" homes. And Boston is asking all major projects to meet the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) standards.

Boston Community Capital also sees potential economic benefits in green development, construction, and renovation. More workers will be needed to fill specialized jobs, and if low-income people get to work on green projects in their communities (where there will be entry-level positions with opportunities for training and promotion), their knowledge is likely to be in demand elsewhere.

One Way to Go Green

Any funding group that chooses to go green should develop its own definitions. For BCC, there are six aspects to a green focus:

First, to be green, BCC-financed development must benefit both the people who live in the new spaces and the borrowers who build the developments.

Second, BCC should focus on areas where it knows it can make a difference—indoor air quality, energy costs, and siting of projects, as opposed to, say, global warming.

Third, the green elements sought for a given project must be appropriate. For example, the renovation of a leased child-care facility could improve indoor air quality and upgrade lighting fixtures, whereas heating systems, windows, and building-orientation issues, which would be beyond the facility's control, would not be required.

Fourth, BCC will encourage green elements but not insist on specific standards or benchmarks until it gains more experience. It will align its funding, information, and technical assistance to help borrowers get the expertise to make the projects as green as possible.

Fifth, BCC will take into account tight budget constraints of community-development borrowers and not require projects to absorb the costs of experimental technologies. However, in looking at cost effectiveness, BCC will consider life-cycle costs, not just initial costs for design, appliances, and building systems. For example, some insulation may cost more but be tighter and more healthful.

Finally, because green technology, regulations, standards, costs, and pricing are evolving quickly, BCC's framework, policies, and requirements will be dynamic.

Other funding organizations interested in taking a green approach to community development should check the LEED standards and also the Enterprise Foundation and the National Resources Defense Council's Green Communities criteria. Their standards define green elements including siting, solar orientation, natural lighting, use of materials, indoor air quality, energy, water-efficient appliances, use of renewable energy or distributed generation capacity, and recycling of building materials.

What Has Been Learned

Boston Community Capital's experiences with early-stage financing and technical assistance to borrowers, combined with its observations of others'

community-based green initiatives, have informed its commitment to green standards. Five major lessons have been learned so far:

• The most effective and least costly way to incorporate green features into a project is to consider greening opportunities at the earliest stages of the development process—especially through an integrated design approach.

• Borrowers are interested in embracing the principals of sustainable development, but many do not believe they have the knowledge to make appropriate choices about including green elements in projects.

• Although green development practices have advantages such as enhancing the asset value of buildings, and lowering operating and maintenance costs, those benefits generally are not recognized or captured in the market or in the financing system—particularly when it comes to housing. Gaining recognition is complicated because the life-cycle benefits of lower operating costs often accrue to new owners or lessees rather than project developers. Also, regulations often inhibit the use of innovative technologies and materials and may have requirements that would be redundant in green construction.

• The strategies that lower the costs, speed up innovation, and limit the risks of adopting new technologies require a level of collaboration and aggregation that is unfamiliar in the disaggregated field of community development.

• Few financing tools are available to nonprofit organizations at the critical early stages of development. Moreover, those resources that are available are not easily accessed and provide no incentives for funding the early-stage costs of green development.

Initial Steps

The Green Building Production Network is focusing on three areas: developing financing products to support green development; aligning borrowers and projects with resources, public approval procedures, incentives, and innovation from other fields; and capturing and sharing information, data, and best practices on green development.

Because start-up funding is the hardest financing for community-development groups to acquire, Boston Community Capital is expanding its financing products to cover the early-stage costs for integrated and green development. It will also consider financing specific first-cost investments that generate savings in utilities or operating costs. Where applicable, it will work with borrowers to arrange alternative financing, such as leasing or contracts with energy-service companies, and it will explore financing-aggregation strategies that can capture underutilized financial and tax benefits.

Home in the process of renovation on Hewins Street in Erie-Ellington area of Dorchester.

Despite widespread interest in green development, the financing, permitting, and policy systems are rarely aligned to support it. For example, agencies that encourage green development as public policy may shy away from approving higher-density projects, may have funding requirements that limit capital or first-cost expenses, or may have permitting policies that do not accept new technologies.

Additionally, the finance system for community development is fragmented and loosely coordinated, requiring many sources of funding, separate approval procedures and timetables, and multiple or even competing views of green development and technology.

The Green Building Production Network is working on models for aligning community-development systems and green policy goals. Future discussions among the network's development teams and public agencies should lead to a more efficient and streamlined process for public review and approval. The process needs to include early involvement of regulatory staff, common staff across all green projects, and concurrent—not sequential—review.

The network also will explore customized relationships with green product manufacturers, distributors, and utility companies, offering them an urban test market or R&D laboratory for new products and the chance to develop long-term customer relationships.

Boston Community Capital plans to create financing incentives that encourage borrowers to share specialized green expertise. It also envisions a web-based green checklist linking to best practices, development of common measures for tracking a building's long-term performance, and research on the best ways to market green properties.

DeWitt Jones *is Loan Fund President and COO of Boston Community Capital, which provides debt and equity financing throughout the Northeast.*

Endnote

[1] "The Costs and Benefits of Green Affordable Housing" (Cambridge, Massachusetts: New Ecology, 2005), http://www.newecology.org.