

## NEIGHBORWORKS™ GREEN ORGANIZATIONS

A Comprehensive Commitment to Sustainable Operations













### BEYOND GREEN CONSTRUCTION

THE NEIGHBORWORKS
GREEN ORGANIZATION PROGRAM





he NeighborWorks® Green Organization program is building a network of organizations that will lead the affordable housing and community development industry to a more sustainable future. Through the program, NeighborWorks America is committed to reducing the ecological footprint of NeighborWorks and its network organizations while creating the tools organizations need to advance the greening of their own operations and services.

This document profiles the first 16 organizations to receive the NeighborWorks Green Organization designation. Becoming a NeighborWorks Green Organization is recognition of the organization's comprehensive commitment to sustainable operations. Each organization has exhibited the dedication, diligent focus, strength of governance, and public commitment toward using sustainable business practices that will benefit the organization, its employees and the communities they serve. These designated Green Organizations are leaders within the national NeighborWorks network, the communities in which they work and the entire community development industry.

### **About the Program**

The NeighborWorks Green Organization program is a unique approach to evaluating the sustainability of affordable housing organizations. Rather than just considering whether a housing development meets the latest green building standard or uses the latest green technology, the program considers all the ways that NeighborWorks network organizations impact their residents and communities. This comprehensive approach considers not just how they build and renovate housing, it also:



- Looks at the inclusion of energy-efficiency and healthy homes concepts in the homeownership education and counseling that the organizations provide to low-and moderate-income families as well as their home improvement lending services to community residents;
- Considers how organizations are managing the housing that they own for energy efficiency and healthy home practices, and how they interact with their residents to increase awareness of green and healthy homes practices;
- Looks at an organization's connection to the community and it's ability to build resident leaders working on sustainable solutions;

Finally, it encompasses the core of the organization – how sustainably they run their own offices – because it's important to walk the talk and demonstrate green and sustainable practices.





- **Defining:** The program provides clear, comprehensive green guidelines for NeighborWorks network organizations to use within their business plans and practices. These guidelines cover everything from day-to-day business practices to education, real estate, and community building.
- **Building:** NeighborWorks helps organizations incorporate green practices by providing ongoing learning opportunities, technical assistance, and financial resources, and creates forums through which organizations can share practices and learn from each other's experience.
- **Recognizing:** Finally, the program celebrates the achievements of organizations that adopt green practices in their operations and each of their business lines through the NeighborWorks Green Organization designation.

The benefits of this program are clear: When healthy and sustainable principles are comprehensively applied, residents are healthier, homes are more affordable, communities are more sustainable, and organizations are more prepared for the future.

### **2016 Program Impact**

NeighborWorks' new Strategic Plan sets a target of designating two-thirds of NeighborWorks network members as Green Organizations by 2016. Through an annual application process, NeighborWorks will designate a new cohort of Green Organizations each year. This is an ambitious goal with far-reaching impacts on the NeighborWorks network and the industry once achieved. Meeting this goal means that by 2016, the program will:

- Create over 150 green local office environments and cultures that will benefit over 7,000 employees in these local offices and result in better community environments and healthier workplaces for the employees;
- Provide more than 25,000 families annually with knowledge and skills to assess the homes they are buying for green, healthy features, and to understand the impact of such homes on family budgets and health;
- Provide nearly 100,000 residents in the network's rental properties with better information on managing healthy, energy-conscious homes;
- Improve annually the energy efficiency of 2,000 existing rental homes to be at least 15 percent more energy efficient and instruct residents on how to use the energy efficient features of their homes to reduce their energy budgets;
- Offer 6,000 owner occupants annually with rehabilitation and repair options that consider energy efficiency and healthier home improvements;













- Create 2,000 new homes annually that meet a green standard for energy efficient and healthy living environments that reduces energy consumption and greenhouse emissions;
- Engage at least 80 communities in discussions and agenda setting around environmental issues relevant to the community.

### **Green Organization Guidelines**

To help NeighborWorks network organizations implement green approaches in a systematic and comprehensive way, NeighborWorks America established the Green Organization Guidelines – specific criteria for an organization's overall management and operations as well as each of the major NeighborWorks-supported program areas. The Guidelines include "Green Achievements" under the following 10 sections.

### Whole Organization:

- Section 1: Organizational Commitment
- Section 2: Operations

### **Program Areas:**

- Section 3: Homeownership Education and Counseling
- Section 4: Lending
- Section 5: New Construction
- Section 6: Multifamily Rehabilitation
- Section 7: Single Family Rehabilitation
- Section 8: Asset and Property Management
- Section 9: Owner and Resident Awareness
- Section 10: Community Building and Organizing

Organizations applying for the NeighborWorks Green Organization designation must demonstrate that they have met the Green Achievements for the whole organization and in each of the program areas in which they operate 1. Each designation lasts for three years, after which an organization will have to reapply.

### **Green Achievements - Summaries and Innovative Examples**

NeighborWorks' Green Achievements in each area are introduced below, along with innovative examples of how NeighborWorks Green Organizations are incorporating sustainability into each.

#### **Organizational Commitment and Operations**

Adopting a comprehensive sustainable approach to serving their communities requires that change must resonate from within the organization. It is only when each group incorporates sustainability into its day-to-day practices that it can begin to maximize the financial, social and environmental benefits that greening can bring. The NeighborWorks Green Organization

designees have exemplified this through engaging their board and staff, developing green management plans and communicating their green agendas and accomplishments. Many have also created internal green teams to help coordinate educational activities for their coworkers.

### Organizational Commitment and Operations: Spotlight

- **Neighborhood Development Services (NDS)** has taken big steps to reduce its environmental footprint, including removing excess lighting, using reusable silverware, mugs and dishes and even purchasing i-Pads for the staff and board to reduce the amount of paper used by the organization.
- Since **REACH Community Development** introduced its Internal Sustainability Plan, paper use has been reduced 23 percent, all lights have been replaced with CFL light bulbs and employees have dedicated their efforts to using alternative transportation and commuter programs. They have even begun to take advantage of a new Zip Car policy, are provided with bus tickets for off-site meetings, and regularly compete to see who can use alternative transportation most effectively to get to work. For their efforts, the city of Portland rewarded REACH with both the Recycle at Work Certification, the Sustainability at Work Designation and *Oregon Business* magazine ranked it the #11 best green company to work for in 2012.
- To better prepare for the future, **Troy Rehabilitation & Improvement Program** (**TRIP**) is participating in the University at Albany School of Business's Going Green Globally Program (G3). Under the program, a group of five students examined and assessed TRIP's sustainable practices and presented recommendations for improvements that could increase TRIP's profit. With improved insulation, windows and lighting over the next three to five years, TRIP could save a total of \$21,000.

### Homeownership Education and Counseling

Nationally, NeighborWorks Green Organizations counsel tens of thousands of homebuyers and existing homeowners annually. Organizations with pre- or post-purchase programs for homeowners have a meaningful impact on consumer awareness of green topics such as energy efficiency and water conservation and consumers' ability to make decisions that are healthier for themselves and their families and more financially sustainable. Green Organization designees have successfully incorporated these concepts into their education curricula. And because their staff are on the front lines delivering information to clients, at least 90 percent of their homeownership program staff have completed courses in green home building and healthy living concepts such as the NeighborWorks Training Institute's *Being Green, Seeing Green: Counseling Clients to Maximize Energy Savings*<sup>2</sup>.

### Homeownership Education and Counseling: Spotlight

- To better cater to the vast cultural and ethnic diversity in the area, **Southwest Minnesota Housing Partnership** uses culturally relevant methods and materials to help renters and homebuyers understand the importance of a healthy, well built home environment, including in-house presentations and bi-lingual educational opportunities.
- Community Housing Partners helps homeowners create less costly homes and provides a more holistic educational experience for clients by offering thorough post-purchase counseling that includes environmental and energy saving techniques. When implemented, these techniques help clients save up disposable income, create more affordable homes, and provide a more holistic educational experience.















### Lending

Home improvement lending plays a pivotal role in the green rehabilitation of existing homes. With the right financial tools and green education, homeowners can begin to create healthier and more durable homes for their families while saving money well into the future by reducing their energy and water bills. Organizations that succeeded in integrating sustainable principles into their lending programs offer and market lending programs that enable homeowners to implement green rehabilitation and retrofits on existing homes and effectively provide information on available external resources such as subsidies, rebates and loans that can also be used to fund and finance green home improvements.

### Lending: Spotlight

- The Energy Saving Home Improvement Loans program provided by Homewise,
  Inc. helps homeowners create more energy efficient, healthy indoor environments
  for their families. Qualified home improvements include energy efficient cooling
  systems, high efficiency furnaces, solar electric and hot water and other energy
  saving improvements.
- Cambridge Neighborhood Apartment Housing Services, Inc. (CNAHS) plays a
  pivotal role in the Low-Income Energy Affordability Network (LEAN), a network of
  nonprofits and public housing representatives that designed and now administers
  the Massachusetts Low Income Multifamily Energy Retrofit Program. The program
  provides grant funding for homeowners and owners of multifamily properties to
  perform cost-effective energy efficiency work.

### **New Construction**

Green building makes housing more affordable to own and operate, healthier and more comfortable to live in and helps preserve the environment. Using an integrative approach to designing and building, the NeighborWorks Green Organizations have constructed multifamily and single family developments that use less resources and save money for the organizations and the residents that reside in them. At least one half of the housing units developed by designated organizations meet the qualifications of a national or local green building program such as Energy Star, the US Green Building Council's LEED program, or Enterprise Green Communities, providing their communities with durable and affordable housing of which they can be proud.

### **New Construction: Spotlight**

- Constructed on a remediated Brownfield site, Foundation Communities' M-Station
  is the first LEED for Homes Platinum community in Texas. It includes an on-site
  childcare facility, clothes care center, computer lab, community learning center,
  sports court and pavilion and is located at the heart of one of Austin's transitoriented districts.
- Rural Ulster Preservation Company in Kingston, New York, embraces smart
  growth and incorporates other sustainability principles throughout its operations.
  The 15 ENERGY STAR® certified townhomes at Buttermilk Falls are built for
  superior energy performance, comfort, health and safety. Total utility usage is
  expected to net savings of approximately 60 percent in annual heating expenses and
  30 percent in cooling, further promoting long-term sustainability and affordability.

• **NeighborWorks Umpqua** is proud to have "gone green before green was a verb." It has long included remarkable environmental and sustainable features in new housing construction and rehabilitation. NeighborWorks Umpqua utilizes Enterprise Green Communities and Earth Advantage standards for all construction, often meeting LEED and ENERGY STAR requirements as well.

### **Multifamily Rehab**

Few green building programs are comprehensive or flexible enough to address all of the components of a multifamily rehabilitation project. Because the scope of the rehabilitation varies with the needs of the property, greening most existing properties require integrating healthy sustainable homes principles with the early phases of planning and construction. For the majority of rehabs completed, NeighborWorks Green Organizations conduct comprehensive green assessments of the properties, including energy audits or green capital needs assessments, and maximize opportunities to create more efficient, durable, and healthy environments for their residents.

- The rehab of Neighborhood Development Services Lakeview Apartments in Ohio included extensive energy upgrades such as air sealing, new attic insulation, heat pumps, high efficiency lighting and water conservation fixtures. The hard work paid off with a 20 percent reduction in energy. Similar results were noted at two other NDS developments, the Maplewood Senior Village Apartments and Washington Square Apartments, where energy efficiency increased 25 percent after the completed rehab.
- For more than 25 years, Community Development Corporation of Long Island has administered the Weatherization Assistance Program (WAP) to Nassau and Suffolk Counties' residents. It was the first organization in New York State to include WAP-funded energy efficiency upgrades in low income housing tax credit (LIHTC) program acquisition and rehabilitation of multifamily projects.

### Single Family Rehabilitation

Rehabilitating single family homes rather than building new ones keeps waste out of landfills and provides an opportunity to reduce the use of new materials. This ultimate green action also provides an opportunity for NeighborWorks organizations to incorporate more efficient and healthy improvements into older homes. NeighborWorks Green Organizations incorporate green specifications into the rehabilitation of single family homes. They have paid special attention to weatherizing and replacing antiquated systems, and making the single family homes in their communities healthier, more comfortable and less expensive to run.

### Single Family Rehab: Spotlight

- NeighborWorks Western Vermont focused a \$4.5 million Department of Energy grant on its three-year goal of helping 1,000 homes in Rutland County achieve at least 25 percent energy savings. Since 2010, NeighborWorks has provided energy audits to nearly 1,300 homes and retrofits to more than 406 homes. Program participants have saved an average of 376 gallons of fuel per year. NeighborWorks' H.E.A.T Squad Energy program saved homeowners in Rutland County \$580,000 in one year on energy costs.
- Housing Assistance Program of Essex County's (HAPEC's) Green and Healthy Homes Services program places a strong emphasis on energy conservation, indoor environmental quality, lead poisoning prevention and sustainable site planning. Services consist of home energy audits and lead inspections for existing homes, as well as HERS (Home Energy Rating System) ratings for new homes.











### Asset and Property Management

The NeighborWorks Green Organizations presented here use effective and environmentally sustainable property management techniques to ensure that newly constructed green buildings and developments maintain the high performance standard they were intended to achieve. Green asset management strategies also improve the performance of buildings and extend the life of existing assets that were not originally built or renovated using green approaches. Green Organizations with at least 50 units of rental housing use green operations and maintenance plans, and ensure that healthy and sustainable homes principles are incorporated into their capital improvement plans. Green Organization designees with larger rental housing portfolios (those owning over 100 units) have developed comprehensive green asset management strategies and have utility tracking and monitoring systems in place that help them to monitor the performance of their buildings.

### Asset and Property Management Examples: Spotlight

- In an effort to improve its portfolio, **Cambridge Neighborhood Apartment Housing Services, Inc. (CNAHS)** built a rigorous asset and property management plan. WegoWise software rates and compares CNAHS properties with others of similar sizes. The software also prioritizes the importance of specific developments in energy and utility savings. In addition, CNAHS's energy planner focuses on incorporating technical energy efficiency consumption at all properties, and ensures the use of environmentally sustainable building materials and renewable energy sources.
- Over 5,200 units are managed by Community Housing Partners using its Green
  Operations and Maintenance Principles, which ensure that all replacement products
  meet standards that improve energy and water efficiency. In addition, over 50 property
  managers are certified in Green Property Management by the National Affordable
  Housing Management Association (NAHMA).

#### **Owner and Resident Awareness**

For organizations that own and manage real estate, resident education and awareness can greatly impact the overall sustainability of a property – whether a new or rehabbed single-family home or an existing rental property. Educating owners and residents about energy and water saving behaviors not only positively impacts the overall conservation of resources, it empowers residents to take action promoting sustainability throughout their community. NeighborWorks Green Organizations see the connection between resident awareness and their organization's development and property management strategy and have succeeded in educating their clients on how to maintain a more efficient, healthier, and more comfortable living environment.

### Owner and Resident Awareness: Spotlight

- Foundation Communities' Saving Green Program includes interactive workshops on energy and water conservation, transportation options and healthy living and eating for residents of rental properties it owns. The program includes an in-home conservation consultation and follow-up energy reports that reveal residents' usage trends. Resident enthusiasm is also nurtured through energy saving contests where residents can receive rent-saving coupons. For the past three years, participants have seen an average savings of five percent on their utility bills.
- Community HousingWorks' bilingual Green 360° Curriculum is designed to create energy-efficient residents of all ages. The curriculum includes age-specific activities, reviews of bottom line benefits, technical examples and useful green lifestyle tips that go beyond home maintenance and teach residents how to live healthier lives.

### **Community Building and Organizing**

The NeighborWorks Green Organizations that participate in NeighborWorks America's Community Building and Organizing Program realize they can achieve "deepest green" by empowering their residents and encouraging them to take the future of their neighborhoods and communities into their own hands. Creating sustainable, self-sufficient communities is inherently linked to effective community building and organizing. Green organizations and resident leaders have used innovative programming to create vibrant communities and ignite local green and sustainability transformations that maintain their impact over time. Through energy efficiency workshops, urban gardening projects and community based planning and design initiatives, they are directly linking sustainability to matters of social justice and community empowerment.

### Community Building and Organizing: Spotlight

- New Kensington Community Development Corporation's Sustainable 19125 has gained national recognition in its attempt to make the Philadelphia neighborhood represented by the ZIP code the greenest in the city. The initiative depends on the collaborative partnerships among residents, businesses, government and local nonprofits. So far over 1,000 households have committed to more sustainable lifestyles by signing the "Green Pledge." An integral part of the effort is the Green Blocks Program, where residents designated as "Green Guides" encourage their block to participate in greening their homes and properties using free energy efficient light bulbs, catchy public awareness materials and neighborhood events.
- The 2.5 acre orchard started by Westside Housing Organization and a slew of partners and funders currently has over 200 fruit trees and berry bushes for the use of neighborhood residents. In addition to providing a much needed resource for the food desert, the orchard provides the community with an opportunity to learn more about farming and healthy eating, and the trees and shrubbery help to improve urban air quality and mitigate storm water runoff, decreasing the burden on infrastructure. Residents help to maintain the garden and participate in lessons and events and in return receive the fresh fruit cultivated for free.











## HOMEWISE, INC.

Santa Fe, New Mexico



COMPLETE PACKAGE. The only production builder in Northern New Mexico that continues to build ENERGY STAR® certified homes with both solar hot water and solar electric options.





hen Homewise was founded in 1986, it was a small nonprofit that focused on home rehabilitation in Santa Fe's impoverished West Side. Today, Homewise is a large and dynamic organization providing a wealth of services, including financial counseling and education, lending services and housing rehab and construction. Since its founding, Homewise has helped more than 2,300 people purchase homes and more than 1,675 keep their homes by providing financial and technical assistance for home repair. Homewise has also trained and counseled more than 8,200 people on successful homeownership and built more than 440 quality affordable homes.

### **GREEN HIGHLIGHTS**

### **Green Team**

To underscore its dedication to sustainability, Homewise established a Green Team to create and implement environmental strategies in and around the workplace. Comprised of leadership from each Homewise department, the group meets monthly to discuss collective action and educational efforts that promote resource conservation. Important topics include waste and recycling, green purchasing, energy efficiency, water conservation and improvements for a healthier indoor environment. Sustainability is introduced at new employee orientations, and environmental business practices are regular agenda items at staff meetings. One team objective is to create a responsible employee community, based on green living, energy conservation and renewable energy solutions that will carry over into their private lives.



### Homewise Energy Saving Home Improvement Loans

Homewise recognizes that improving one's home, especially in terms of environmental applications, can often be expensive and seem initially unfeasible. For this reason, the organization offers low-interest loans for energy efficient and water-conserving home improvements. These may include roof repair or replacement, or installation of insulation, windows, doors, high efficiency furnaces and cooling systems, solar electric and hot water, water catchment/drip irrigation systems, disability modifications, etc. The loans prevent costly home repairs down the line and enable residents to enjoy lower utility costs. Homeowners are able to invest in stable, environmentally healthy futures for their homes and communities.

### **GREEN BUILDING**

### Homewise Homes ™

Homewise Homes™ homes are a great source of pride for Homewise and its communities, as each house built represents the organization's commitment to longterm environmental, social and economic responsibility. Homewise recognizes that durability, comfort and health are essential assets for every financially sensible homeowner. Innovative engineering ensures homeowners that these ideals are both initially met and affordably maintained. Homewise also goes above and beyond the green building codes and standards required by the city of Santa Fe, thereby achieving the Build Green New Mexico Gold rating for many of its houses. Each house incorporates environmentally beneficial features that results in a 40 percent drop in the demand for water and energy compared to a house built by standard code. This is achieved by applying careful design, building science and green technologies, as well as advanced building techniques. Use of these state-of-the-art green building methods and technologies are but a few reasons why all Homewise Homes™ homes are ENERGY STAR® certified and also carry Gold Level certifications in conformance with the American National Standards Institute's National Green Building Standard.



#### Rincon del Sol

Homewise is in the final stages of construction of the 38 single family homes that will complete Rincon del Sol, the organization's 62-unit affordable housing development in Santa Fe. Rincon del Sol offers nine floor plan options, as well as open space with walking trails. The Homewise model home in this development received the 2011 Most Energy Efficient Award from the Santa Fe Area Home Builders Association. Its standard features include a whole house fan that uses outside air to cool the home naturally, high performance, dual-pane Low-E windows, a cost-effective radiant floor heating system and blown-in insulation derived from recycled materials free of harmful toxins. The houses are also furnished with quality and attractive countertops, tile, carpet and doors, as well as low-VOC (volatile organic compound) paint and ENERGY STAR® lighting and appliances.







## HOUSING ASSISTANCE PROGRAM OF ESSEX COUNTY

Elizabethtown, New York



ousing Assistance Program of Essex County (HAPEC) was founded in 1976 with the mission of recognizing community development and housing needs, advocating change and responding to opportunities throughout the Adirondack Park in New York State. Two-thirds of the parkland, which spans over six million acres, is protected as "Forever Wild" forest preserve; the remaining third is private land, comprised of settlements, farms, timberlands, businesses, homes and camps. Today, HAPEC offers residents direct homeownership and home repair services, rent subsidies and multifamily and commercial development. HAPEC has also conducted a number of community service projects, including grant writing and acting as sub recipient in the creation of medical clinics, town libraries, a town boat launch, and central business district planning and improvements. The efforts of this flagship organization have resulted in the rehabilitation of more than 1,600 homes occupied by lower-income families, administration of 580 subsidized rental housing units, construction of scores of new homes, development of numerous multifamily rental properties throughout Essex County and more than 550 new homebuyers.

### GREEN SPOTLIGHT

Who knew back in 1892, when Adirondack Park was created in response to water and timber resource concerns, that HAPEC would be a leader in conserving resources in the area even today?



### **GREEN HIGHLIGHTS**

### **Green and Healthy Home Services**

With the ultimate goal of preserving viable, year-round communities in the Adirondacks, HAPEC undertakes a variety of measures to ensure these communities develop and exist sustainably. The Green and Healthy Homes Services program meets environmental considerations in new construction and rehabilitation practices by placing a strong emphasis on energy conservation, indoor environmental quality, lead poisoning prevention and sustainable site planning. HAPEC also encourages the use of ecologically friendly building materials and renewable energy resources. Specific measures offered under the Green and Healthy Home Services consist of home energy audits, HERS (Home Energy Rating System) ratings for new homes, lead inspections, educating clients and social marketing. HAPEC also gives financing of pellet stoves. Pellet stoves are more efficient and less expensive than fossil fuels and burn condensed biomass that is available locally, such as switch grasses and wood.





THE RIGHT GROWTH. Hamlets 3 offers great information, including graphics and visuals, on Smart Growth planning.

The Adirondack Park was created in 1892 by the State of New York in response to water and timber resource concerns in the region.



economic growth and environmental health, but can be carried out in the planning and design stages. Photographic illustrations and written descriptions of Adirondack hamlets and similar sites provide excellent examples of how to realize and apply the principles to boundaries, walkability and human-scale, access to nature, compact centers, energy and sustainability, jobs and housing, transportation choices, visual quality, resource preservation and collective decision-making. The book reveals the challenges of and potential for Smart Growth in the existing 15 hamlets and offer schematic proposals of the results of a field analysis. Additional models featuring Smart Growth Rings overlaying current land use classes give an expansion framework for planners and community participants. Finally, the guidebook highlights steps on how to achieve incremental success through project financing, community participation and plan implementation.

### **Adirondack Community Housing Trust**

Formed with the idea of sustainably preserving affordable housing stock in the Adirondack communities, the Adirondack Community Housing Trust (ACHT) realizes that maintaining existing communities strengthens community pride and environmental stewardship. The Adirondack Park is comprised of small, unincorporated hamlet communities, or expansion zones, where residents and leaders see the growing need to revitalize their economies through residential and commercial expansion. Keeping the concept of environmental stewardship in mind, ACHT addressed this unique challenge by sponsoring the production of a hamlet-specific guidebook, entitled *Hamlet 3*, on sustainable development. The guidebook outlines Smart Growth principles that not only promote



REGIONAL IMPACT.
ACHT has invested nearly \$3 million in the surrounding community.





## NEIGHBORHOOD DEVELOPMENT SERVICES, INC.

Ravenna, Ohio





THE RULE. Carpool when possible and avoid air travel to meetings within 200 miles.

IMAGINE. By the year 2014, all NDS properties will have vegetable gardens, all supported by resident volunteers.







eighborhood Development Services, Inc. (NDS) was founded in 1985. It proudly partners with Portage County and other Northeastern Ohio communities to provide affordable housing, homeownership, economic development, job creation and community revitalization. Offering assistance to those who are in need, NDS's work primarily benefits low- and moderate-income households, including working families, the elderly, children and even new or expanding businesses that create or retain jobs.

### **GREEN HIGHLIGHTS**

### **Carbon Footprint Auditing**

NDS provides the unique service of carbon footprint auditing, which analyzes and measures the amount of carbon dioxide emitted from the activities of an individual or organization. Benefits of carbon footprint auditing include the discovery of ways to effectively reduce one's carbon usage and find energy cost savings, helps build a marketable "green" image and, perhaps most importantly, cuts back of environmental harms. Recognizing these far-reaching and positive effects, NDS certifies its staff to perform audits for interested businesses and nonprofits. The carbon footprint auditing process takes approximately one week and considers data collection, employee awareness, utility usage, travel/commuting and recycling.



After the initial site visit, which involves a series of interviews and data collection, the client organization and company management have a deeper understanding of sustainability, and the NDS consultant a better idea of the client's operations and goals. After more interviews, walk-throughs and analyses, the consultant discusses the company's carbon footprint results with all its employees. Consultant-employee discussions involve organizational strengths and weaknesses, plus short- and long-term fixes. Upon completion, the footprint provides quantitative metrics that can be applied to future processes to improve the organization's environmental sustainability. The actual carbon footprint audit report is then delivered along with a full list of resources to help jump-start the greening process.



Under its Asset Management Plan, NDS has committed to incorporating environmental improvements and green maintenance. This means purchasing green materials and supplies when possible, installing rain barrels at all of its properties and creating recycling systems for all residents. Additionally, the maintenance staff is trained on purchasing, methodology and overall green maintenance.

### **Green Building**

NDS's care for the environment is noticeably evident in its holistic, green approach to multifamily rehabilitation projects. All energy and water systems are analyzed, and treatments are prescribed to increase efficiency, reduce energy use, maximize occupant comfort and decrease maintenance. A special emphasis is placed on weatherization efforts to tighten the envelope while allowing HVAC systems to maintain high air quality.



THINKING BIG. NDS seeks funds for a feasibility study to construct a CNG (compressed natural gas) facility and produce CNG vehicles.

NDS runs its own farmers' market in Barberton, Ohio.



There is overwhelming evidence that an investment in weatherization protections pays off—whether for a large office complex or a single family home. Lakeview 2 Apartments is but one example. When the 36-unit complex underwent extensive energy auditing and efficiency improvements, the 20 percent energy-efficiency reduction came as no surprise. Energy upgrades involved the installation of ENERGY STAR appliances, R-38 attic insulation, air sealing, heat pumps and high efficiency lighting and window fixtures, while faucet aerators, dual flush toilets, water efficient washers and landscaping led to decreased water usage. NDS also promoted a healthy indoor environment by using non-emitting cabinets and low-VOC (volatile organic compound) paints and sealants. These environmentally and economically sensitive methods were utilized in two other projects, Maplewood Senior Village Apartments (50 units) and Washington Square Apartments (24 units). As a result, energy efficiency increased by 25 percent in both developments after project completion.







## **COMMUNITY HOUSING PARTNERS**

**Christiansburg, Virginia** 



ommunity Housing Partners (CHP) has served over 206,000 low-income people in the Southeast since 1975. Primary to its mission is the importance of environmental stewardship and this is reflected throughout all of their services, including real estate development, architectural design, construction, energy services, homeownership facilitation and housing management. These efforts, in concert with public and private partnerships, enable CHP to create sustainable communities of choice that promote vitality in neighborhoods, wealth-building for individuals and a better environment for future generations.

### **GREEN HIGHLIGHTS**

### **CHP Energy Services**

CHP got its start by providing emergency home improvements to extremely low-income families in the heart of Appalachia in Southwest Virginia. These improvements focused on making families safe—and warm—through low-cost measures such as caulking and weather-stripping. That core commitment survives today as CHP's energy services division: a professionally certified, highly skilled, technologically savvy team that delivers crucial improvements to homes that need them most. The Energy Services staff completes site-specific energy audits that help to determine insulation needs and include myriad diagnostics—duct leakage, blower-door-directed air leakage, heating system safety and efficiency. CHP's energy services team improves the energy efficiency of approximately 800 Virginia homes each year, yielding an average energy savings of 18-25 percent for every resident, depending on the original condition of the home.



REUSE, RECYCLING, **REINVENTING. Diverted** nearly 3,000 tons of construction waste from landfills since 2008 with its own Class-A general contracting department, which specializes in the use of green building techniques.



### **Community Design Studio and CHP Construction**

The architectural division of CHP, Community Design Studio, LLC (CDS), was established as a regional design firm that supports the unique design needs of community development organizations. What sets CDS apart is its whole-building approach to sustainability as practiced by experienced, LEED-accredited professional staff members. Services such as sustainable building design, eco-friendly landscape architecture and technical advising for Enterprise Green Communities are just a part of the range of programs CDS offers. The organization works closely with the CHP construction team to realize its mutual commitment to high caliber building practices that are economically and environmentally responsible. This process reduces, reuses and recycles construction materials, improves indoor air quality by eliminating toxic materials, minimizes the building footprint, integrates natural daylight and ventilation to promote well-being and recommends environmentally-friendly maintenance practices and products. CHP demonstrates its commitment to human and ecological health through design and construction processes rooted in sustainable site development, water savings, energy efficiency and indoor environmental quality. CHP has developed 20 EarthCraft™ certified multifamily communities for a total of 940 units of affordable housing across Virginia, as well as 32 ENERGY STAR-certified single family homes.



THE GREEN TEAM.
15-employee applicants
from all divisions selected
by CHP's president
and CEO. They will
develop and implement
policies and initiatives
to further organizational
environmental
responsibility.

### CHP Property Management and Resident Services

The property
management and
resident services of CHP
bring its commitment
to sustainability full
circle by ensuring
that environmental
sensitivity informs the
daily operations of its

communities. Over 5,200 rental units are managed by CHP using its Green Operations and Maintenance principles, including such practices as ensuring all replacement products meet standards to improve energy and water efficiency. More than 50 property management staff members are certified by the National Affordable Housing Management Association (NAHMA) in Green Property Management. CHP is now bringing its sustainability message to individual residents through the publication of resident manuals that explain the green features of its new homes and the ways they contribute to the sustainable development of the overall community.

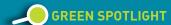
### **New River Center for Energy Research and Training**

The New River Center for Energy Research and Training (NRCERT) is a nationally recognized, innovative program led by certified experts who are committed to a whole house approach to education. Since its inception in 1999, NRCERT has provided training in energy conservation and sustainable housing energy practices to more than 30,000 participants throughout North America. CHP values educational efforts that help people understand how to save energy and thereby reduce their impact on the environment and NRCERT makes this value a reality.



### cafe<sup>2</sup> (Community Alliance for Energy Efficiency)

cafe² is one of only three organizations in Virginia participating in a multistate project to perform 12,500 energy audits and home performance retrofits across a target area by the fall of 2013. The program leverages the environmental knowledge of CHP energy services, NRCERT and cafe² in ways that help homeowners assess their homes' energy use, investigate potential financial resources for recommended energy conservation retrofits and connect interested homeowners with contractors who have met cafe² standards with quality work. A key initiative of the local alliance is to educate government officials, businesses and property owners, as well as lenders and consumers, about the environmental and economic benefits gained through energy efficiency performance improvements on homes and properties.



INNOVATION. Administers \$3.8 million CREATES program grant which provided free greenjobs training for workers and includes one-day certifications, coursework covering weatherization, solar-panel installation, small-business development, and more. The program won the Southern Growth Policies Board 2012 Innovator Award.





# CAMBRIDGE NEIGHBORHOOD APARTMENT HOUSING SERVICES, INC.

Cambridge, Massachusetts





GIVE THOSE SYSTEMS CREDIT. CNAHS saves nearly \$71,700 yearly on electricity and natural gas thanks its solar photovoltaic, solar domestic hot water and cogeneration systems.







ncorporated in 1983 as an apartment improvement program, Cambridge Neighborhood Apartment Housing Services, Inc. (CNAHS), an affiliate of Homeowner's Rehab, Inc., initially served to maintain the quality of rent-controlled units in Cambridge's predominantly rental unit market. Since the demise of rent control, CNAHS has served property owners by offering deferred interest financing and rehabbed rental units. In return, owners maintain affordability in a market notorious for its high rents. CNAHS now owns and manages 926 units in Cambridge, where it focuses on expanding and preserving the supply, and improving the quality of affordable housing for low- and moderate-income families.

### **GREEN HIGHLIGHTS**

### Low-Income Energy Affordability Network (LEAN)

CNAHS, along with partner organizations, helped to create the Low-Income Energy Affordability Network (LEAN) in 2010. This program distributes funds to public housing authorities and private affordable housing developers who are seeking to upgrade the energy systems of their affordable multifamily properties. Massachusetts electric and gas utility companies are mandated by law to invest in energy efficiency programs when the programs are less expensive than buying power, and thereby become funding sources. The Network collects and imparts the financial assistance only for energy efficiency projects that have been proven cost-effective. Selected applicants are also provided with utility usage tracking tools and energy audits. While continuing to serve on the LEAN advisory committee, CNAHS works to secure additional funds for heating upgrades, which have typically been overlooked due to a preference for electricity retrofits. The organization also advocates making applications "meter-and fuel-blind" so the program acceptance process is more equitable and heating projects are more likely to be funded. So far the program has been a success. In its pilot year, 42 buildings received grants, totaling 1,505 heating upgrades and 3,000 electric upgrades.

MORE SAVINGS. A lighting retrofit on the common areas and garage at a 300-units building and a water retrofit on a 137-unit building is saving \$62,000—annually.





## **Increasing Environmental Self-awareness Green Asset Management**

One of the first steps toward taking better care of the environment is becoming mindful of consumption habits that collectively degrade natural resources. CNAHS took this step when it implemented a utility tracking system to monitor energy usage at its properties. Using WegoWise software, the organization can now easily determine where its 70 properties rank in terms of energy and water consumption. Comparisons can be drawn between CNAHS buildings and other projects in the region. It can also prioritize specific developments that call for additional resource-saving measures. Implementation of this software has enabled CNAHS to visualize the quantitative successes and failures of its energy and water saving measures. This process allows CNAHS to continuously improve its property management strategies, unquestionably a key step toward sustainability.

### **Energy Planner**

IN THE KNOW.
Green Living Guide
describes small actions
residents can take to
positively impact their
environment—and
wallets!

Taking advantage of grants from NeighborWorks® America, CNAHS hired an independent energy planner to collaboratively plan, create and implement environmental strategies throughout the organization and its properties. Holding

multiple responsibilities, most falling under the Greening CNAHS Initiative, the planner has helped to prepare a green operations and management plan, green asset management strategy, and tenant education materials. The planner ensures LEED certification for newly constructed homes and renovation projects and also leads the planning process toward minimizing negative environmental impacts and maximizing resource efficiency throughout the real estate portfolio over the next 10 years. This includes conducting a life cycle analysis to determine healthy and environmentallyfriendly building materials and using available funding to install solar panels on selected projects. The planner also incorporates technical energy efficiency improvement recommendations into all future capital needs assessments, leads planning to reduce excessive water consumption at properties and promotes recycling at the poorest

performing buildings. This position has been instrumental in communicating CNAHS green experiences with other community development corporations through the LISC (Local Initiatives Support Corporation) Green Retrofit Initiative in the Boston area and nationally with other NeighborWorks member organizations.

CNAHS wisely recognized that effective implementation of these measures would be difficult accomplish alone. Acquiring expert sustainability guidance was a valuable investment and has enabled the organization it to become a leader in green affordable housing and asset management.

### **LEED Projects**

CNAHS has used the LEED (Leadership in Energy and Environmental Design) rating system to guide greening of new construction and substantial rehabilitation projects. In early 2011, it completed the first rehab project in Cambridge to achieve LEED for Homes Platinum certification at 95-97 Pine Street. This rehabilitation of an aging building on an urban in-fill site featured high-efficiency boilers, heavily insulated exterior walls and roof, a 10,000 kilowatt (kW) solar photovoltaic system, eight solar thermal panels, and water saving devices. The results have been dramatic. The building's natural gas usage was reduced by 67 percent and its water usage by 37 percent.

CNAHS recently completed Putnam Green, a 40-unit new construction project that will also achieve LEED Platinum certification. CNAHS followed the LEED rating system closely, even throughout the early phases of decision making. Highlights of the development include the use of Energy Recovery Ventilators, high efficiency boilers, a 10,000 kW solar photovoltaic system, a solar thermal domestic hot water system and water saving fixtures and fittings. One of the buildings even utilizes structurally insulated panels to achieve high insulation levels and airtight construction.







### NEIGHBORWORKS® UMPQUA

Roseburg, Oregon



ounded in 1991, Umpqua Community Development Corporation, newly renamed NeighborWorks® Umpqua (NW Umpqua), is a rural organization at work in Douglas, Coos and Curry counties in Oregon's far Southwest region. It provides community development resources to low- and moderate-income residents in need of affordable housing. In order to effectively respond to community needs, NeighborWorks Umpqua provides five overlapping lines of business: affordable housing development; homeowner education, training and assistance; economic development; community development; and asset/property management. The NW Umpqua mission is to operate these business lines so that the surrounding community "may collectively and individually recognize its intrinsic value and realize its potential."



### **GREEN HIGHLIGHTS**

#### **Heartwood ReSources**

NW Umpqua initiated and owns Heartwood ReSources, a nonprofit recycling store and deconstruction contracting company located in Roseburg, Oregon. The goals of Heartwood ReSources are to provide affordable, sustainable building materials, jobs and job training for low-income individuals and public education on environmental stewardship. By reclaiming material waste from homes, barns and other buildings for reuse, Heartwood keeps it from entering landfills. As a result, nearly 2,400 tons of material was kept out of landfills from 2003 to 2012. Heartwood's inventory ranges from massive concrete bridge rails to bowling alley lanes (which make beautiful tables and workbenches). More typical inventory includes lumber, hardware, doors, fencing, cabinetry, windows, plumbing, electrical gear, appliances, paints and other such materials. The wide variety and affordability makes purchasing recycled products from Heartwood an attractive option. The store adds charm to the community with its annual Junk Sculpture Contest, and hand-made craft galleries. Heartwood ReSources is a shining example of how the NW Umpqua community reaps the environmental benefits of reducing, reusing and recycling.







### COMMUNITY IMPROVEMENTS

### **Infrastructure**

NW Umpqua strengthens surrounding communities through community facility and infrastructure improvements. The organization has helped to add accessibility upgrades to city halls, and expand community centers, senior centers and food banks. Upgrading existing infrastructure and community facilities not only creates jobs but discourages development from sprawling aimlessly into undeveloped areas. NW Umpqua facilitates the funding and management of the infrastructure projects of more than 15 communities, covering upgrades to water and wastewater systems, streets and parks.

#### **Wetlands**

NW Umpqua recognizes wetlands as a significant part of the natural landscape in the Pacific Northwest. Protecting these areas is an integral part of every development project and creates a great opportunity to form unique partnerships. While creating or maintaining wetlands is not part of its mission, NW Umpqua has set aside acreage for preservation in several of its self-help and single family housing developments. Maintaining wetlands becomes an educational opportunity for neighbors as well. In one case, NW Umpqua united several tiny wetland spots into one lot and dedicated it as a park. The park was given to the city and was connected to a larger, adjacent site, which then became a walking path for the neighborhood.

### **Green Building**

NW Umpqua is proud to have "gone green before green was a verb." It has long included remarkable environmental and sustainable features in new housing construction and rehabilitation. In 2002, it was the first organization in Southern Oregon to install a photovoltaic (PV) array on a housing development. In each new development and rehab project, the organization strives to minimize energy usage and generate clean power. NW Umpqua utilizes Enterprise Green Communities and Earth Advantage standards for all construction, often meeting LEED and ENERGY STAR requirements as well. The following are two of the organization's many environmentally friendly complexes.



treatment and retention

### **Calapooia Crossing**

systems.

The first PV array on a housing complex in Southern Oregon, the Calapooia Crossing solar panels continue to reduce utility bills for residents. Included in the design of these rentals and single family homes are passive and active solar features that diminish the need for additional and outsourced energy to heat or cool the homes by nearly 66 percent a month. At the same time, the proactive netmetering application reduces the electricity requirement for laundry and other services.

### GREEN SPOTLIGHT

BETTER THAN GOLD. NW Umpqua's housing site, Neu Place, attained "Earth Advantage Platinum," the Pacific Northwest equivalent of LEED Silver certification... and it is beautiful. Rain drains from the roof of the development into planters as beautiful landscape features. The bioswale on the site is attractively landscaped and filters all runoff before it reaches the adjacent Umpqua River.

### **Hotel North Bend Apartments**

Choosing to redevelop at an in-fill site helps to maintain regional green spaces, forests, agriculture and riparian areas, and discourages local dependency on carbon-intensive transportation. NW Umpqua took over this old hotel while providing 33 residential and three commercial units for the local community. During the deconstruction phase, NW Umpqua salvaged old materials for Heartwood ReSources and used other recycled materials in the rehabilitation of the structure. The building's energy systems are highly efficient, and include heat recovery ventilation, compact fluorescent lighting, wall foundation and roof insulation, and electric-togas water heating conversion.







## NEIGHBORWORKS OF WESTERN VERMONT

West Rutland, Vermont





A BREED APART. To date, the only nonprofit housing organization in America to receive a grant award directly from the Department of Energy in the Better Buildings program.





ncorporated in 1985, NeighborWorks® of Western Vermont (NWWVT) began as a housing rehab organization working with low-income residents of four towns in Rutland County, Vermont. Over the past decade, the organization has expanded its geographic territory to three counties—23 percent of the state. Programs now include homeownership education, financial counseling, foreclosure intervention, reverse mortgage counseling and community development projects. These operations support the NWWVT mission of revitalizing neighborhoods and fostering a sense of community, while maintaining the dignity and self-reliance of the individual.

### **GREEN HIGHLIGHTS**

### **Better Buildings Neighborhood Program**

Nestled in the mountains of Vermont, NWWVT has a keen awareness and appreciation of its natural surroundings. The organization encouraged low-income households to adopt energy efficient programs long before it was a mainstream concept. The education of low-income households has been so effective that the Department of Energy bestowed a \$4.5 million grant on NWWVT in 2010 under the Better Buildings Neighborhood Program. With this funding came NWWVT's three-year goal of helping 1,000 homes in Rutland County achieve at least 25 percent energy savings. To date, NWWVT has provided energy audits to 1,289 homes and retrofits to 406 homes, saving these program participants an average of 376 gallons of fuel per year.

NWWVT offers high quality customer service for the energy efficiency upgrade process through its NeighborWorks H.E.A.T. (Home Efficiency Assistance Team) Squad. Homeowners of all income levels who take advantage of this program receive an energy evaluation from a certified auditor, as well as personalized advice on cost-effective follow-up measures by a H.E.A.T. Squad energy advisor. Typical efficiency improvements include insulation, sealants and thermal shell improvements. NWWVT is currently planning to expand the program to other NeighborWorks Homeownership Centers statewide through the NeighborWorks Alliance of Vermont.

### Collaboration with the Vermont Working Landscape Partnership

NWWVT is working alongside the Vermont Working Landscape Partnership to stimulate a "rural renaissance" in Vermont by preserving the state's most treasured asset—the working agricultural landscape—through economic development and rural revitalization policy and opportunities. Elemental goals within the plan are to create a campaign to promote Vermont's status as a green economy leader and to establish a Vermont Agriculture and Forest Products Development Board and Fund that contributes to enterprise services and infrastructure investments. Once created, the group would designate "Working Land" communities that offer technical and regulatory assistance, tax relief and conservation easements and activate a Development Cabinet. These efforts will collectively reduce urban sprawl, known to fragment forested and agricultural lands, increase greenhouse gas emissions and produce harmful runoff. Also, sustainably preserved farms and forests can supply the burgeoning biomass sector and host renewable energy generation facilities. NWWVT is directly involved in the development of the Farmers' Market Center, a fouracre site with four elegant but vacant industrial buildings that will become home to the Winter Farmers' Market, the Community Food Shelf, the Vermont Food Bank and ultimately a community kitchen incubator space. This project, putting action where ideas have been, is the perfect vehicle for the revitalization of Vermont's neighborhoods. towns and counties.



HOT SAVINGS! H.E.A.T. Squad saved Rutland County homeowners \$580,000 this year alone on energy costs.

KUDOS TOO. Rehab Construction Manager Ken Welch received the very first NeighborWorks® America Green Rehabilitation Specialist certification in the country.



### **GREEN BUILDING**

### **Kazon Building**

The Kazon Building, office headquarters of NWWVT, underscores the organization's passion for sustainability. The building is a 10,000 square foot multi-use commercial and residential property. A solar hot water system, installed with a grant from the Vermont Housing and Conservation Board, saves approximately 165 gallons of fuel and 360 tons of carbon from entering the atmosphere annually. The solar panels themselves provide enough energy to meet the hot water needs of the entire building. Ceiling fans were chosen over air conditioning, and recycling has been encouraged there for decades. More recently, a pre-feasibility report revealed that a biomass system for the Kazon Building could save more than \$97,000 in operating costs over a 20year span, with \$5,000 saved in the first year. The authors of the study, funded by U.S. Department of Agriculture's Wood Education and Resource Center, have recommended the Kazon Building for further study and possible inclusion in a biomass pilot project.

### **Energy is Rehab/Rehab is Energy**

NWWVT has incorporated energy efficiency measures that address the health and safety of residents into its rehab program. Energy projects are rehab projects, and rehab projects include energy efficiency. The rehab projects all include significant energy upgrades, and the real estate development projects in Middlebury South Village and October Hill all exceed ENERGY STAR standards. Because low-income households spend a disproportionate amount of household income on energy expenses, it is clearly the best way to improve the sustainability of homeownership.





## FOUNDATION COMMUNITIES

**Austin, Texas** 



oundation Communities is an Austin-based nonprofit organization providing first-class, affordable homes and supportive services for thousands of low-income families and individuals. Founded in 1989, the organization offers an innovative and effective model that empowers residents and neighbors to achieve educational success and financial stability. Foundation Communities owns and operates 17 properties, 2,673 units in Austin and North Texas, and provides affordable homes to over 2,600 families. The organization's enriched learning environments reach more than 700 children and offer ongoing adult education and financial coaching. Each year, Foundation Communities helps more than 16,000 low-income residents file their taxes—free of charge—returning some \$27 million in refunds to the local economy.

### GREEN SPOTLIGHT

VALUE ADDED.
American YouthWorks students carry out basic weatherization at all properties and FC provides youth with excellent training on how to audit and weatherize homes.



### **GREEN HIGHLIGHTS**

### **Saving Green Program**

Foundation Communities has taken outstanding measures to spread environmental awareness throughout the organization and all its lines of business. Whether through on-site environmental training, monthly newsletters featuring "Green Tips," or annual Sustainability Reports analyzed by property management, educating staff is a priority. Foundation Communities ensures that all of its lead maintenance and property managers are certified through the National Affordable Housing Management Association's Green Property Management Credential Program.

Most important is the organization's multifaceted approach to educating its residents. Now in its third year, Foundation Communities' Saving Green Program offers interactive workshops that give residents the tools and resources needed to make healthy, economic and environmentally savvy decisions in their daily lives. The workshops cover energy and water conservation, transportation options and healthy food. In-home conservation consultation is offered, as is follow-up energy reports that reveal participants' usage trends. Energy saving contests with rewards such as rent coupons add a competitive edge to the program and keep participants motivated. Saving Green Program participants enjoy, on average, a 5 percent savings on their utility bills.

### **Green Building**

At all Foundation Communities developments, staff, residents and business owners alike embody the organization's sincere dedication to attaining environmental and equitable sustainability. The list of healthy living provisions, energy management technologies and water conservation techniques included in all Foundation Communities properties is admirably extensive. All units contain low-flow water appliances, solar screens that reduce heat gain, environmentally friendly pest management and programmable thermostats.





### **Green Building Initiatives**

#### M Station

A flagship property developed by Foundation Communities, M Station is considered the "greenest apartment complex in Texas." Located in the heart of Austin, this outstanding 150-unit affordable housing development holds a LEED (Leadership in Energy and Environmental Design) Platinum rating—the first family LEED for Homes Platinum community in Texas. It has certifications from Enterprise Green Communities and the Austin Energy Green Building Program, and was recently recognized as one of the "Nation's Best Affordable Housing Developments" as the winner of the green category in Affordable Housing Finance magazine's 2012 Readers' Choice Awards. The building was constructed on a 13-acre brownfield site in one of Austin's transit-oriented districts. and includes an on-site childcare facility, a clothes care center, computer lab, community learning center, a sports court and a pavilion. Pathways and shaded areas make the exterior cool and inviting, while rainwater harvesting bins help maximize natural benefits from ecological systems. Stocked with ENERGY STAR appliances and other environmental features, M Station is deemed one of the most energy efficient apartment complexes in the nation.

### Sierra Vista Apartments

Another premier Foundation Communities development, the environmentally friendly Sierra Vista Apartment complex, is comprised of 238 units that were rehabilitated to Austin Green Building Program standards. Residents who call Sierra Vista home, enjoy the health benefits of ceramic tiling, low-VOC paints and adhesives, plus formaldehyde-free cabinets. They also reap the financial perks of energy efficient, well-insulated units. Sierra Vista Apartments feature reflective roofs, 14.5 SEER heat pumps, ceiling fans, water meters, low-flow toilets, interior CFL lighting, exterior LED lighting, ENERGY STAR appliances, duct sealing and air infiltration measures.

### **Renewable Energy Initiatives**

Foundation Communities takes its environmental stewardship beyond the field of construction. It is currently one of the largest private producers of solar energy in central Texas, making it a regional leader in renewable energy. Foundation Communities' solar panels produce 107,000 kWh each year, some 5 percent of the energy used by the organization. Solar hot water arrays provide approximately 50 percent of the energy needed to heat water at its Spring Terrace and Skyline Terrace developments. Additionally, all of the organization's house utility accounts are invested in 100 percent solar or wind energy. Foundation Communities wisely takes advantage of local conservation rebates and grant programs to finance many of these renewable energy projects.





HIGH TECH GREENING.
The Energy Scorecard
program is used to
integrate all utilities into
a centralized database so
usage can be monitored
easily and needs for
upgrades and changes
determined quickly.





## RURAL ULSTER PRESERVATION COMPANY

Kingston, New York







ural Ulster Preservation Company (RUPCO) is a nonprofit agency that has delivered housing and community development support to the surrounding region for more than three decades. Within its mission to create housing, support residents and improve communities, RUPCO operates several lines of business focused on emergency financial assistance, rental assistance, single family home rehabilitation, new homebuyer assistance, multifamily home rehabilitation and construction and management of housing for special needs populations.



established its Office of Community Development to address community needs, help with job creation, share home ownership tips and more.

### **GREEN HIGHLIGHTS**

### **Green Building**

RUPCO embraces Smart Growth and incorporates other sustainability principles throughout its operations and lines of business. The Sustainability and Green Energy Initiative was adopted as one of five major goals outlined in the organization's 2012-2017 Strategic Plan, with the specific objective of reducing the agency's carbon footprint by 10 percent by 2017. RUPCO's exemplary commitment to sustainability is also reflected in the neighborhood it supports through its visionary planning and building of high quality, affordable, and ecologically friendly homes.



TOP APPROVAL. RUPCO remains an active member of the U.S. Green Building Council (USGBC), which developed the LEED certification standards and the best practices for building green.

#### **Woodstock Commons**

Woodstock Commons is the first major affordable housing development built in Woodstock in 20 years. The project is also among the first in New York to be constructed through the LEED (Leadership in Energy and Environmental Design) for Homes New Construction Program and will be eligible upon completion to receive a silver-level LEED certification from the U.S. Green Building Council. In its entirety, Woodstock Commons will be comprised of 53 housing units for seniors, working families and artists. There will be no net loss of freshwater wetlands and no need for fossil fuels in the heating and cooling of the homes, as this will be done through a closed loop geothermal system. RUPCO's approach to sustainable land development has also positioned it in an arena of top builders. As a participant of the LEED for Neighborhood Development pilot program, Woodstock Commons highly exemplifies Smart Growth and New Urbanism principles. The in-fill site on which the project is located was chosen because it utilized preexisting infrastructure, eliminated the environmental burden

GREEN SPOTLIGHT

LIFE-CHANGING
RESTORATION. With living
and working spaces designed
specifically for artists,
renovation of a vacant and
abandoned lace mill will
undoubtedly transform lives
when the Kingston site is
completed in 2014.

of sprawl and provided walkable access to nearby commercial centers. The mixed-use housing units will be clustered in order to maintain forested areas and provide for nature and fitness trails. Of the 28 acres designated for the site, only one-third will actually be converted for construction.

### **Buttermilk Falls Townhomes**

The 15 ENERGY STAR® certified townhomes at Buttermilk Falls are built for superior energy performance, comfort, health and safety. The architecture replicates the two-story, wood-framed, gabled-roof features of the surrounding neighborhood while employing sustainable cementitious siding and trim with stone accents. The interior is apportioned with sustainable bamboo wood flooring throughout the first floor. Each home provides 1,242 square feet of livable area, three bedrooms, 1 ½ baths and a full, unfinished basement. Energy efficient measures include: a building insulation system; Low "E", argon-filled aluminum clad windows; direct vent, high efficiency furnaces; and hot water heaters with an ENERGY STAR® appliance package. Two dual-speed, ENERGY STAR® rated bathroom fans promote high indoor air quality. CFL lamps and water-saving plumbing fixtures were utilized throughout. Total utility usage is expected to net savings of approximately 60 percent in annual heating expenses and 30 percent in cooling, further promoting long-term sustainability and affordability.

#### **Kirkland Hotel**

Built over a century ago in 1899, the historic Kirkland Hotel went through several ownerships before falling into dormancy and disrepair in the 1980s. To restore the hotel to its former glory in an environmentally friendly manner, RUPCO obtained funds from the city of Kingston, NeighborWorks® America and New York State Energy and Research Development Authority (NYSERDA), as well as a New York Energy \$martSM loan. The Kirkland Hotel Project was designed in 2006 and includes green measures such as energy efficient lighting and building systems, a ground source geo-thermal system for heating and air conditioning and a parking field constructed of pervious pavers to minimize storm-water runoff.



### **Green Jobs - Green New York**

In 2011, NYSERDA designated RUPCO an independent contractor through the Green Jobs - Green New York program and granted the agency, in partnership with Westchester Residential Opportunities, \$600,000 over two years to provide outreach, education, recruitment and workforce training, encouraging energy efficiency throughout the Hudson Valley. RUPCO fostered relationships among partner agencies, municipalities and private organizations to raise environmental awareness and encourage commercial and residential energy efficiency. This was done largely through home shows, business events and community gatherings. RUPCO went on to leverage its knowledge and resources to market programs for green workforce training and free/low-cost energy audits, installation services and improvement financing across 10 counties.





### COMMUNITY HOUSINGWORKS

San Diego, California



ounded in 1982, Community HousingWorks (CHW) combines the proud history of Community Housing of North County and San Diego Neighborhood Housing Services. Ever since the two organizations merged in 2002, CHW has consistently served its mission of "helping people and neighborhoods move up in the world by providing a full range of housing options combined with training and support." Its impressive list of activities and services include: building and maintaining multifamily affordable housing, providing asset-building classes and coaching, offering realty and lending services, supporting youth education and building leadership skills through training and support. CHW programs help clients own, rent and achieve and, with its comprehensive service model, CHW reaches over 8,000 children and adults annually.

## GREEN SPOTLIGHT

WHERE IT COUNTS. Helps direct subsequent financial benefits from Virtual Net Metering (a program that reduces cost barriers to solar system installations in multifamily complexes) to tenants, rather than property owners.

### **GREEN HIGHLIGHTS**

### **Real Estate Development**

CHW is recognized by the nation's affordable housing industry for its strong leadership in sustainable development, most evident in its solar energy initiatives. CHW was the first—and is now a six-time recipient—to be awarded the Multifamily Affordable Solar Housing (MASH) Track 2 Program competitive grant under the California Solar Initiative. CHW used these funds to provide photovoltaic electricity to more than 260 homes with another 220 in the works. Additionally, CHW has completed two new installations and 10 retrofits of solar hot water systems, which will serve nearly 700 units. Altogether, 50 percent or more of CHW's portfolio has undergone substantial retrofitting efforts. All of its units have sustainable upgrades, such as low water use faucets and ENERGY STAR appliances. The following two examples, SOLARA and Avocado Court, are two of its revolutionary green affordable housing developments.

### **SOLARA**

Completed in 2007, SOLARA is the first mixed-use community in the nation to be powered solely by photovoltaic electricity. It comprises 56 affordable apartment units and a commercial office building on 2.5 acres of land in close proximity to public transportation, jobs, shopping, a library and a civic center. As a result, it can boast a 95 percent reduction in greenhouse gas (GHG) emissions compared to similar operations of a nearby complex. Additionally, the complex features tankless hot water heaters, dual flush toilets, recycled building materials and low/no volatile organic compounds (VOC) paints, carpeting and cabinetry.



SOLARA embodies sustainability through not only its environmental and social benefits, but its fiscally responsible impact as well. When faced with the challenge of having 33 percent of the property located in a floodplain, CHW cost-effectively constructed a promenade atop a retaining wall and added 12 apartment units to the plan. Not only was the project delivered early and under budget, CHW returned the remaining funds to its public lenders. Considered the very first Zero Energy New Home by the California Energy Commission, SOLARA's exemplary innovation has been recognized and praised throughout the country. No wonder it has received the Pacific Coast Building Conference Gold Nugget Grand Award, as well as the Urban Land Institute Award of Excellence.

SMARTER RESIDENTS,
HEALTHIER RESIDENTS.
The six organic community
gardens planted at CHW's
affordable apartment
communities have inspired
the incorporation of
community garden learning
at on-site learning centers.

### **Avocado Court**

Completed in 2007, SOLARA is the first mixed-use community in the nation to be powered solely by photovoltaic electricity. It comprises 56 affordable apartment units and a commercial office building on 2.5 acres of land in close

proximity to public transportation, jobs, shopping, a library and a civic center. As a result, it can boast a 95 percent reduction in greenhouse gas (GHG) emissions compared to similar operations of a nearby complex. Additionally, the complex features tankless hot water heaters, dual flush toilets, recycled building materials and low/no volatile organic compounds (VOC) paints, carpeting and cabinetry.

### **EDUCATION**

### 360° Green Curriculum



With its 360° Green Curriculum offered in English and Spanish, CHW gives families the opportunity to expand their understanding of environmentally sensitive decision making. Classes are held in all 15 of CHW on-site learning centers where affordable housing

residents can learn about energy and water conservation, recycling, indoor air quality and landscape maintenance to grow organic food. Each section is taught using written lessons and age-specific activities, including topic overviews, bottom-line benefits, technical examples and green-lifestyle tips.



### **OUTREACH**

### **FaceLift**

Each year, CHW invigorates community spirit with its annual neighborhood revitalization event, FaceLift. An entire block within San Diego's City Heights neighborhood prepares to undergo a dramatic transformation with the arrival of hundreds of volunteers who come together to paint houses, beautify yards with xeriscaping (a wasteefficient landscaping technique) and to remove trash. The home "facelifts" are completed to a set of green standards that help preserve the community's housing stock. Beyond the tangible benefits provided to low-income families and elderly or disabled adults, the litter removed from streets and canyon areas contributes to recycling efforts while reducing fire hazards. Since 1995, CHW has improved the quality of more than 500 homes by removing and/or recycling more than 1,000 tons of trash—all within the low-income City Heights community.



its comprehensive Green Rehab Standards and eventually resells them to first-time homebuyer families.







## COMMUNITY DEVELOPMENT CORPORATION OF LONG ISLAND

Centereach, New York



refurbishment and reuse.

n 1969, local government and business leaders founded the Community Development Corporation of Long Island (CDC) for the sole purpose of producing affordable housing in Nassau and Suffolk Counties. Today, with a substantially expanded mission, the organization provides a variety of programs and services that address the dynamic challenges facing Long Island residents and workers. Not only does CDC work tirelessly to meet the local need for housing, it supports the economic aspirations of individuals, families and small businesses through its exemplary stewardship of resources. Having assisted more than 111,500 Long Islanders and invested \$844 million in local communities, CDC continues to be a significant force for meeting the needs of people and businesses and fostering vibrant, equitable and sustainable communities.

### GREEN SPOTLIGHT

AWARDED GREEN.
Recognized for recycling
580 lbs. of electronic
waste and awarded six
trees, planted and named
for CDC of Long Island.



### **GREEN HIGHLIGHTS**

### **Long Island Green Homes and Buildings Consortium**

When the Town of Babylon needed help creating the Long Island Green Homes Consortium (LIGHC), it turned to CDC of Long Island to develop and lead the effort. The Consortium is a collaborative endeavor of seven Long Island municipalities to provide education, marketing and outreach to residents in hopes of reducing building energy costs and usage. It was formed as part of the Green Jobs - Green New York Project of the New York State Energy Research and Development Authority (NYSERDA) and the U.S. Department of Energy's Better Buildings Program. Already the program's benefits can be seen throughout Long Island. Local partners help homeowners, small businesses and nonprofits by leveraging the best state and local energy efficiency incentives and benefits. LIGHC also helps participants get comprehensive energy audits and apply cost-effective efficiency improvements to their houses through Building Performance Institute (BPI) accredited contractors. With these measures, residents can save up to 20 percent on their oil, gas and electric bills. In Babylon alone, participants saved an average of \$1,084 annually. Other community-wide benefits of these efficiency improvements are increased property values, a more robust local economy and the creation of green jobs.

### **Weatherization Assistance Program**

As local provider for the Weatherization Assistance Program (WAP), a program administered and run by New York State Homes and Community Renewal, CDC of Long Island has helped residents of Nassau and Suffolk counties protect their homes for more than 25 years. A federally funded initiative under the U.S. Departments of Energy (DOE) and Health and Human Services (HHS), WAP's free services are offered to lower income homeowners and renters, especially the elderly and disabled, to lessen utility costs and conserve natural resources. Energy efficiency measures, including audits, heating system cleaning and tune-ups, weather stripping, caulking, air sealing,



insulation, window and door repairs and hot water heater replacements, have been provided through CDC of Long Island in more than 18,000 single and multifamily owned and rented homes in Long Island. The WAP boasts Building Performance Institute (BPI) accreditation and BPI certified staff.

#### **Green Rehabilitation**

CDC of Long Island was the first organization in New York State to include WAP-funded energy efficiency upgrades into low-income housing tax credit (LIHTC) program acquisition and rehabilitation of multifamily projects. Over the last two years, it has substantially improved the living and operating conditions of a number of affordable apartment complexes, such as Twin Oaks Apartments.

### **Green Business Strategies Pilot**

CDC of Long Island was awarded a NeighborWorks® America Green Business Strategies pilot grant for its Weatherization Assistance Program, specifically to fund the start-up costs of its energy auditing business initiative. Scheduled to launch in January 2013, the initiative will provide NYSERDA Home Performance with ENERGY STAR® comprehensive home assessments for moderate and middle income households. Project management support for recommended improvements will be included, and CDC of Long Island will help homeowners apply for Assisted Home Performance subsidies. Even more, the organization will partner with other participating BPI accredited contractors who will serve as subcontractors for installation of energy efficient measures.

### **Green Rehabilitation**

Twin Oaks Apartment, in Hempstead, New York, was rehabilitated with a focus on environmentally sensible land use and landscaping. As a joint venture with Conifer, LLC and CDC of Long Island, the apartment complex was redeveloped under the New York State Housing Trust Fund Green Building Initiative. This local designation is given to properties that are developed using an integrated design and Green Building Plan following New York State's criteria for green building development.

CDC and Conifer chose infill redevelopment and rehabilitation over new construction. The vacant building was transformed from a college dormitory into 94 units of tax credit rental housing on only two acres of land. It is within walking distance of Hempstead's central business district and served by public transportation. The apartments feature energy and water conservation, including insulation and air sealing, ENERGY STAR® appliances, plus new heating and hot water systems with sensors and timers. The surrounding landscape will include the existing trees, shrubs and plantings, as well as additional non-invasive, drought-resistant, climate-specific plant species.

After construction was completed, National Grid, an international electric and gas utility company, awarded CDC of Long Island a local Green Cinderella grant, supporting the local development of housing and the growth of businesses.

### **Green Home Maintenance Training**

CDC of Long Island's Home Maintenance Training
Program is a multiclass, "hands-on" home repair course
for homeowners interested in improving their homes. In
the green module, homeowners receive training from BPI
certified professionals on energy conservation measures
that help save money. Participants are also given access
to resources that allow them to install deeper energy
efficiency measures such as those featured in the Long
Island Green Homes Program.





## REACH COMMUNITY DEVELOPMENT, INC.

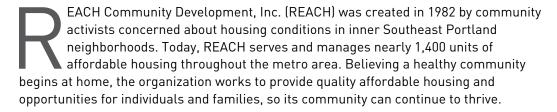
**Portland, Oregon** 







AMONG THE GREENEST.
Ranked #11 of 100 Best
Green Companies to Work
For in 2012 by *Oregon Business* magazine.



### **GREEN HIGHLIGHTS**

### **Going Green Initiative Project**

In 2009, when REACH decided to improve the sustainability of its office and property operations, it formed the REACH Going Green Initiative. The goal was to reduce energy consumption by 10 percent, beginning with its own day-to-day operations. With the implementation of this effort, REACH created a more environmentally sustainable organizational culture, incorporating renewable resources and energy efficient practices throughout its portfolio and office operations. Following are three main components of its Going Green Sustainability Project.



### **Internal Sustainability Plan**

REACH has made strides in greening its general office procedures. It has installed motion sensors and CFL light bulbs that reduce energy use by 10 percent in its headquarters and by as much as 21 percent in its apartment buildings. After a six-month campaign, it had reduced paper usage by 23 percent. Employees take advantage of a Zip Car policy and alternative commuter programs to cut down on fossil fuel-intensive individual vehicle transportation. In addition, REACH provides staff with bus tickets for travel to off-site meetings and holds contests to encourage employees to use alternative transportation to commute to work. The city of Portland has recognized REACH for its green efforts, rewarding it with both the Recycle at Work certification and Sustainability at Work designation.



SPREADING
SUSTAINABILITY.
Working with Portland's
EcoDistrict program,
develops energysaving measures that
benefit the entire South
Waterfront community.



### **Resident Programs**

REACH works hard to promote the concept of sustainability throughout its properties. After surveying its residents and working with the American Lung Association, REACH offers smoking cessation classes

to residents who want to quit and designated on-site smoking areas so residents who continue to smoke could do so without impacting their neighbors. Today, its rental portfolio is now smoke-free. Several properties have garden boxes for residents to plant and cultivate healthy foods. Residents in multiple buildings benefit from Healthy Homes classes that encourage the use of eco-friendly household cleaning products. Taking this one step further, residents of the renovated Admiral and Walnut Park Apartments are given goodie bags with samples of green cleaning products, recycling tips and guidance on the correct use of the buildings' new conservation features.

### **Achieving Energy Savings**

To reduce energy usage and costs, REACH focuses intently on assessing its buildings' current energy usage patterns, conducting energy audits and determining necessary retrofit projects. REACH has already completed 10 energy audits and installed efficient light bulbs, lowflow showerheads and aerators in 20 large multifamily buildings. All washing machines have been replaced with high-efficiency models. REACH was granted more than \$400,000 toward energy retrofits in three of its properties, and it uses the online management and benchmarking tool, EnergyScoreCard, to monitor energy consumption in all of its apartment properties.

### **Green Building**

REACH established the use of green building practices in 1994 and has remained committed to sustainable development since. It is a member of the U.S. Green Building Council, the administrative entity of the LEED (Leadership and Energy and Environmental Design) certification program. All of its developments now boast sustainable features. Once completed, Gray's Landing, the largest newly constructed project in REACH's history, will be certified LEED Silver. In addition to containing residential units, it will house REACH's headquarters on the ground floor. The building is located on the streetcar line, allowing employees easy access without driving. The following describes yet another outstanding example of the organization's dedication to the environment.

#### **Station Place Tower**

From its early design phases to its completion, Station Place Tower received praise for its green innovation. First, site selection was made so the building could reap the benefits of passive solar gain and light, reducing the need for artificial air conditioning units. A former brownfield site, two feet of clean soil was laid, with the use of pesticides and herbicides explicitly prohibited. Construction materials were purchased from regional manufacturers when possible, and the roof and other structures were created from recycled materials. Overall, the project achieves an 80 percent total material waste



reuse and recycling by weight. The building also features extensive landscaping, as well as rooftop gardens. These gardens contain only native and low-maintenance plants and feature a high-efficiency irrigation system. Internally, each wall, floor and ceiling has been thoroughly insulated and all windows and perimeter insulations

exceed the required efficiency standards. Common areas, living areas and bedrooms are heated by gas forced-air furnaces, electric heat pumps and electric resistance cove radiant heaters. ENERGY STAR appliances and fluorescent lighting fixtures are ubiquitous. Station Place Tower is also home to the largest rainwater harvesting system for a residential building in Portland. The stormwater is used for 80 toilets on six floors, saving a substantial volume of outsourced water. Studies reveal that the high-efficiency landscaping and hydro technology ensure the water consumption of Station Place Tower is half that of similarly sized apartment buildings in the REACH portfolio.



FIRST IS BEST. The first nonprofit to build an apartment building in the Passive House Institute of the United States Demonstration Program, a 57-unit complex that will reduce energy consumption by up to 80 percent compared to similarly sized and operated buildings.





## NEW KENSINGTON COMMUNITY DEVELOPMENT CORPORATION

Philadelphia, Pennsylvania



GREEN SPOTLIGHT

GREEN PAYS. A Wharton School of Business study concluded that street tree plantings in the 19125 ZIP Code™ area raised the value of adjacent properties by 10 to 20 percent.



GREEN SPOTLIGHT

POWER IN NUMBERS.
In just 10 months, 95
households installed rain
barrels, 150 applied for
street trees, 1,250 accepted
recycling bins and some
1,000 signed a "green
pledge" commitment.

ew Kensington Community Development Corporation (NKCDC) was founded in 1985 by the leadership of the local civic association to meet the community's housing needs. During its first 10 years, the organization concentrated on rehabilitating vacant homes and providing housing counseling services to low- and moderate-income families. In 1995, it completed a year-long neighborhood planning process that broadened the scope of its work, developed new partnerships and diversified its revenue base. In 2003, NKCDC underwent another planning process that actively involved neighborhood residents, business owners and church leaders. As a result, a more focused approach was developed to address the area's needs. NKCDC continually upholds its mission of strengthening the physical, social and economic fabric of its community through initiatives that embody sustainable development and community building.

### **GREEN HIGHLIGHTS**

### Sustainable 19125

NKCDC has gone above and beyond in terms of promoting environmental stewardship within its community. It takes a multifaceted approach to improving and protecting ecological health, as well as offering education and outreach on topics such as energy, transportation and land use. In this vein, NKCDC created the Sustainable 19125 in 2008. This initiative was formed with the ambitious goal of making 19125 the most sustainable ZIP Code™ in Philadelphia, and it does so through efforts and partnerships with area residents, businesses, governments and nonprofits. Following are three Sustainable 19125 focal points of the initiative.

### **Big Green Block**

Big Green Block is a multi-component sustainability project located "at and around" a recreation center and a high school in Philadelphia's Kensington neighborhood. The purpose of this effort is to install green infrastructure systems throughout a 20acre site central to NKCDC's target neighborhoods, known as the "Big Green Block." Green infrastructure refers to the utilization of natural vegetation and soil to reduce surface runoff and increase the ecological filtration, storage and evapotranspiration of stormwater. This prevention is especially important in the city of Philadelphia, as it uses a combined sewerage system that is more likely to overflow waste into water bodies during storms. Typical examples of green infrastructure include, rain gardens, planter gardens, bioswales, permeable pavement, green roofs and tree canopies. NKCDC recognizes the benefits of these natural systems go beyond the improvement of the natural environment; they also have pleasing aesthetic effects. So, in collaboration with the Philadelphia Water Department (PWD) and other organizations, NKCDC designated 16 locations to support green infrastructure projects. Two stormwater infiltration basins capture runoff from nearby streets and a parking lot. A planned rain garden will serve a similar purpose. Additionally, five stormwater tree trenches that manage runoff below ground have been constructed. According to PWD, the green infrastructure in Big Green Block reduces stormwater runoff by over 11 million gallons.



### Walk, Bike, Ride

This campaign promotes a no-car approach to transportation. NKCDC strives to positively reinforce the concept of "green, greener, greenest," especially in terms of getting from point A to point B. The initial idea is to walk,

bike or use public transportation to commute to work at least three times a week. People are encouraged to report idling hotspots and, if possible, reduce the number of cars in their households. If done collectively, using alternatives to fossil fuel-based transportation will have a major impact upon local air and water quality. Further outreach within the Walk, Bike, Ride campaign includes neighborhood handouts that outline alternative modes of



transportation, the importance of exercise and lowering individual carbon footprints. NKCDC also engages volunteers in posting informative signage on public transportation throughout the community. Events, such as bicycle safety checks and workshops, have been held in collaboration with the local Bicycle Coalition. Urban designers are even challenged to make neighborhoods more accessible. This has been successful in the Big Green Block, where a new sidewalk has connected a dead end to an adjacent street, making it a walkable, visibly appealing route alongside green infrastructure improvements.

### **Green Blocks**

An integral part of the Sustainable 19125 Initiative is resident engagement. This is accomplished largely through the Green Blocks program, which allows different neighborhood blocks to compete to improve the sustainability of their community. Efforts are led by Green Guides, residents who are given the responsibility of organizing and tracking neighborhood actions. These actions typically fall within six categories: greening, recycling, energy savings, water conservation, transportation and buying and growing locally. As specific goals within these categories are developed, Green Guides encourage active resident participation. In addition, they

use Green Block Tool Kits to help achieve these goals with greater ease. The kits typically include recycling stickers, tree planting applications, energy efficient light bulbs and the opportunity to obtain free or low-cost trees and rain barrels. Green projects may even be eligible for grant funding. Green guides and participants can also track progress through an online Green Blocks Tracking Form which shows the progress and effectiveness of their projects.



GREEN SPOTLIGHT

GOOD LIGHTS. The 3,400 free compact fluorescent energy-saving light bulbs distributed, saved some 2.1 million pounds of carbon dioxide over the lifetime of the bulbs.

### Vacant Land Management Program

In response to local concern about abandoned lots and their negative impact upon community safety and appearance, NKCDC implemented

the Vacant Land Management Program in 1996. NKCDC's goal is to transform vacant lots into "clean and green open spaces." This is done through a land stabilization process of removing debris and litter, leveling the ground, adding top soil and cultivating grass seed. Some lots also feature trees and fencing. NKCDC is dedicated to the upkeep of these renovated lots, portrayed by its monthly maintenance plan requiring mowing, mulching, treetrimming and trash removal. The program encourages infill development whenever possible, and helps neighborhood residents acquire side yard additions to their homes. Thanks to volunteers, NKCDC and its partner organizations, more than 300 parcels of land have been cleaned and greened, 156 lots have been added to the side yard initiative and 15 garbage-filled vacant lots have been converted into community gardens.





## WESTSIDE HOUSING ORGANIZATION, INC.

Kansas City, Missouri



has served residents of the Westside Housing Organization (Westside Housing) has served residents of the Westside community and many more neighborhoods in Kansas City. Through direct investments of more than \$35 million, the organization has worked tirelessly creating housing, improving the neighborhood physically, and serving as community advocate on a range of issues. With strong partnerships, a cadre of resources, and education and leadership at the forefront, Westside Housing has created an unwavering organization. The results can be seen throughout its work, whether resident engagement, affordable housing opportunities or seeking resources for homeowners. The organization's record of success includes the construction of over 100 houses in the urban core, including replacing the worst public housing project in Kansas City, Missouri, with 10 single family homes and 120 mixed-income apartments and town homes. Westside Housing has also provided loans and grants for upwards of 1,770 homeowners. In addition, it gets neighborhood input and approval before every apartment and house is built. In this way, Westside Housing ensures safe, sustainable and positive change for its neighborhoods and communities.

### **GREEN HIGHLIGHTS**

### **Community Outreach**

Westside Housing is involved in several green initiatives and is wholeheartedly committed to going green and promoting economic, social and environmental sustainability throughout the neighborhoods it serves.

### **Westside Urban Orchard**

Westside Housing recognized early on the need for community and environmental improvements. The empty grass lot behind the Tony Aguirre Community Center provided a prime opportunity to both promote environmental benefits and educate local residents. In partnership with SkillsUSA and TimberlandPRO, and with the help of neighborhood volunteers, Westside Housing planted an urban orchard behind the community center and cultivated the 2.5-acre grove. Nearly two years later, the orchard is the largest in the community, home to more than 200 fruit trees and berry bushes. The trees and shrubbery help improve the poor urban air quality and mitigate storm water runoff, decreasing the burden on infrastructure. Meanwhile the fresh fruit provides a much needed resource in a community that is considered a "food desert." Westside Housing is dedicated to expanding local awareness of the orchard, including making the fruit free for all residents. In order to transfer stewardship to the community, Westside Housing distributes a quarterly newsletter detailing related activities with guidelines on how to get involved. Lessons from Master Gardeners, Mulch Madness and the Westside Energy Fair are among the events that are being conducted at the community orchard.



SAVING SOME GREEN.
Homeowners will benefit from the energy savings realized and from rebates through local utility providers and state of Missouri tax credits.
Families will be taught and told about the money saving results.





### **Green Community Improvement District**

Westside Housing is working with the Hispanic Economic Development Corporation (HEDC) to create a Green Community Improvement District that demonstrates how this ethnically diverse neighborhood can be green while maintaining its identity. Activities and amenities in the Green Community Improvement District would include such things as glass and recycling bins, and the installation of solar compactors that do not need to be emptied as often as regular trash cans and don't overflow with vermin and pest-attracting debris. The many light industrial businesses in the area would have incentives to recycle more material. Landscaping would emphasize drought-tolerant native plantings. Businesses that still need to mow their lawns would be encouraged to hire one landscaping contractor, who would mow and trim all different properties on one day, using electric or sustainable methods. The area's many restaurants and organic waste-producing businesses would be aided in establishing a large-scale composting program. Westside Housing is also working with HEDC to develop a training-to-employment program through the local community college. Training will focus on developing the necessary skills to launch successful careers in the green jobs industry.



### **GREEN BUILDING**

### **Focus Green Program**

Westside Housing is energizing its green building efforts via the Focus Green program. Using the principles of "planet, people and prosperity," the program combines the following standards into all of the organization's existing construction and real estate projects: Green Communities Criteria 2008, Green Single Family Rehabilitation Standards 2008, Green Communities Checklist, and ENERGY STAR Guidelines for Zone 4. With these methods in mind, Westside Housing is working toward many sustainability goals. It will design, develop and construct 10 new ENERGY STAR homes, plus expand its multifamily management portfolio—with Focus Green programs—by 50 percent. Each apartment unit in the portfolio, as well as 180 single family homes in select neighborhoods, will be renovated to meet the criteria for ENERGY STAR certification. In addition, Westside Housing is expanding its general contracting reach to include privately funded sustainable development projects. While the organization secures staff certifications for LEED (Leadership in Energy and Environmental Design) and energy audits, 10 percent of these audits will be available for free to households below 50 percent area median income.

New and existing housing under the Focus Green program have many green features. For example, single family home renovations have resulted in 30-40 percent energy reductions after the installation of insulation, air-sealing, ENERGY STAR windows and HVAC systems. Multifamily units benefit from insulation, air-sealing, ENERGY STAR windows and doors, low-flow plumbing fixtures and R-19 siding. Residents of new homes can also take advantage of building design that maximizes passive solar heating, and uses insulation of the building envelope, low/no volatile organic compounds (VOC) paints and materials that promote high indoor air quality.

### GREEN SPOTLIGHT

EDUCATE! Home repair classes will be re-established on the Westside and in Northeast, with special emphasis on home weatherization, energy efficiency and even crime prevention measures that can be successfully and affordably undertaken by the average homeowner.





## TROY REHABILITATION & IMPROVEMENT PROGRAM, INC.

**Troy, New York** 



roy Rehabilitation & Improvement Program (TRIP) was founded in 1968 by a group of individuals who believed in the principle of community initiative. Today, the TRIP board and staff reaffirm that belief and strive to bring public and private resources to light in a manner that encourages independence. The staff works diligently to connect individuals and families with the resources and knowledge needed to live in desirable homes and create vibrant, sustainable communities.

### **GREEN HIGHLIGHTS**

Since its inception, TRIP has witnessed dramatic regional transformation of urban sprawl. The organization has historically had to work with very old, energy- and water-inefficient housing stock that often contains asbestos and lead. TRIP has been working hard to morph its longtime lines of business and green values into a cohesive effort that will effectively reduce these and other environmental harms. TRIP has accomplished this by creating a Green Initiative, described below, that articulates its values and puts into operation its sustainability commitment through internal procedures, as well as external services. Committed to its mission and encouraged by the benefits of "going green," TRIP helped disseminate green information to other NeighborWorks® organizations in New York State, going beyond its communities to spread the word and enlighten others.



### NeighborWorks Alliance of New York State Energy and Green Task Force

TRIP coordinates the NeighborWorks Alliance of New York State (NYS), which includes New York's 22 NeighborWorks organizations. Shared interest in green issues led to the development of an Alliance Energy and Green Task Force (EGTF) in 2010. The group meets monthly by phone to discuss the present and future green programs of NeighborWorks organizations and to share information and expertise. To date, the EGTF has created a database of green activities, funding and partners within the NeighborWorks network. The task force has facilitated networking and knowledgesharing and sponsored Green Partnership Opportunities forums in 2011 and 2012. These day-long conferences were open to all NeighborWorks organizations interested in learning about various opportunities in green and energy work. They have an opportunity to hear from energy experts and consultants, as well as funders of green and sustainability programs, and to network among other groups interested in or currently providing energy services. These exciting forums included sessions on greening typical lines of business—rehabilitation, construction management, real estate development, lending and consumer education—and provided guidance to participants on how to undertake new environmental initiatives within their existing services.

## GREEN SPOTLIGHT

GREEN TURNS HEADS.
A software company
recently rented an old
industrial warehouse
TRIP rehabilitated with
energy efficient systems
and carpet padding made
of recycled tire products.
The software company just
couldn't pass it up.

#### **Green Initiative**

In 2011, TRIP decided to formalize and coordinate its long-term and informal commitment to green activities and sustainable practices through the creation of its Green Initiative. Staff from all five lines of business was invited to join the Green Team, which ensures integration and networking throughout the entire organization. An inventory of current

green and sustainable practices was developed to keep track of the amount of time invested in greening the organization and its practices. With support from a sustainability consultant, it then set out to formalize its green practices and to create an action plan for additional efforts.

### **Internal Policies**

With commitment from Green Team members, TRIP began to shift its organizational culture to one of green

awareness and action. Signs were posted everywhere reminding staff to turn off lights, computers and water faucets, to reduce printing as much as possible and to recycle paper, plastics and glass. Policies were set for heating and cooling operations, one of the biggest energy wastes in the old industrial warehouse that houses most of TRIP's operations. Where previously staff could adjust thermostats at will, they are now programmed for maximum efficiency. Additionally, a sustainability consultant was retained to work with the team to determine the best plan of action for moving forward to a "deeper" green.

### **G3** Analysis to Further Green TRIP Operations

One of the Green Team's most recent and largest projects is its partnership with the State University of New York at Albany School of Business' G3: Going Green Globally program. G3 is a program offered to first year graduate students in the School of Business. A group of five students was assigned to examine TRIP's sustainability practices, to assess strengths and weaknesses, and ultimately to present recommendations for improvements that will increase the organization's commitment to sustainability profitably. The students focused on opportunities for improving the energy efficiency and sustainability at the organization's administrative offices, housed on two floors of a four-story, centuryold warehouse building. Their recommendations and calculations identified that the break-even points for improved insulation, windows and lighting were all within five years, and that over 10 years it would save TRIP \$21,000 in reducing energy consumption. The Green Team will present these recommendations to the TRIP board of directors for implementation over the next two years.



### **Marketing Green**

TRIP has also taken steps to increase green practices among its customers. To boost the low rate of recycling among its 250 rental unit tenants, TRIP's rental management produced a move-in instructional video for all new TRIP tenants, which includes segments on the importance of conservation and recycling. Additionally, it will place a recycling dumpster behind a 12-unit building to test whether or not this visual cue motivates residents to recycle more often. To spread the word, TRIP added a new page to its website and will pass along the latest green information and resources. For more information visit http://triponline.org/community\_building/ GreenandSustainabilityResources.html.

### **Green Building**

With a longstanding history of rehabilitation projects, TRIP has had the opportunity to incorporate environmental features into many of its properties. Visit any TRIP renovation and find the highest energy efficient heating and water system, ENERGY STAR appliances and replacement windows, removal of all lead and asbestos, and insulation and air sealing of the building's envelopes. You will also find attic insulation, low-flow toilets, cellulose insulation, ceiling fans in all bedrooms and the living room, and the use of green products like linoleum instead of tile. You will observe a smart and committed team probably in the midst of converting house water meters to individual unit meters whenever possible, knowing every possible step will have a huge impact upon their tenants' water consumption.



GREEN SPOTLIGHT

GREEN COMMUNICATION
IS KEY. The monthly
Deeper Shades of Green
e-newsletter column
highlights green practices
and sustainability events,
and offers ideas that
will help people be more
environmentally conscious.





### SOUTHWEST MINNESOTA HOUSING PARTNERSHIP

Slayton, Minnesota







**GREEN SPOTLIGHT** 

RECORD PROGRESS.
Significant strides
have been made by
incorporating the teaching
of green practices and
sustainable behaviors into
its home maintenance
workshops and homebuyer
education efforts for
immigrants.



he Southwest Minnesota Housing Partnership (SWMHP) was incorporated in 1992 and is today active in 30 counties in Southwest and South Central Minnesota. The organization's impressive list of services portrays an unmatched commitment and includes, homebuyer education and counseling, owner-occupied housing rehabilitation, commercial rehabilitation, lending services, multifamily and single family new construction and management, rental rehabilitation, construction management and employer-assisted housing development. The goal of The Partnership is to provide planning, programming, management, asset management and other related housing services. Its mission: To create thriving places to live, grow and work through partnerships with communities.

### **GREEN HIGHLIGHTS**

### **Healthy Homes + Healthy Communities Initiative**

SWMHP is a national leader in developing and retrofitting high-quality, affordable homes. By building all its houses to a premium standard, it helps ensure that the associated human and environmental health is strong and the surrounding communities are sustainable. Southern Minnesotan households have long suffered from health and safety problems, ranging from chemical and particle contaminants to poor ventilation. There is also a general lack of green space and access to community services. Through the Healthy Homes + Healthy Communities Initiative, SWMHP addresses both these immediate and long-term issues with five comprehensive strategies.

### **Education**

First, the organization strives to educate homebuyers and renters on how to select and maintain quality housing. This is often done through culturally specific methods and materials, such as hands-on home maintenance classes. SWMHP also offers healthy housing assessments that help homeowners and renters identify hazards within their homes and find solutions to fix them.

### **Design and Development**

Second, SWMHP constructs and rehabilitates all single and multifamily homes to higher than required safety and health standards. To top this, SWMHP builds new and retrofits existing homes to meet the Minnesota Green Communities standard. That several of its more recently completed townhome complexes and single family homes received good, progressive ratings comes as no surprise.

SWMHP's third strategy in carrying out the initiative is to design neighborhoods in a way that enables residents to connect safely with each other and to nearby services. The organization works closely with architects, the University of Minnesota, the National Center for Healthy Housing and others to reach its safe-housing design goals.

### **Referral and Intervention Planning**

The fourth strategy is participation in a regional referral network. SWMHP collaborates with six counties in Southern Minnesota to create a network of schools, clinics and similar educational and public health facilities. This network will provide safety net and home improvement assistance for homeowners and renters facing hazardous housing conditions.

### **Policy**

The fifth and final strategy of the Healthy Homes + Healthy Communities Initiative is to help develop healthy housing policy with local and state governments. SWMHP does this through grant funding and alliances with the Greater Minnesota Housing Fund, Family Housing Fund, Minnesota Housing Partnership, Minnesota Green Communities and the Sustainable Resources Center. Regional and statewide meetings are held to collect local data and perspectives on hazards and interventions, to develop policy positions and cultivate community activities that promote healthy living environments. The durability of affordable housing stock this program ensures will have a positive impact upon the environment for decades to come.

### **Green Building**

SWMHP incorporates environmental measures into all aspects of its housing development process, from planning and construction to monitoring and maintenance. During the initial design phase of any multifamily or single family property, an internal green capital needs assessment is conducted. The results are analyzed by professionals (with different realms of expertise) who then create project design, operating, health and energy and water conservation goals. Comprehensive costbenefit analyses, using post-rehab green modifications, are projected by consultants. Post-construction, the

organization follows a green property management procedure. Property inspections are carried out by SWMHP project managers who are trained in a number of areas. SWMHP also tracks electricity, gas, water, sewer and trash usage by development, and inputs this utility data into software. Analysis of the data reveals where efficiency improvements are needed. With this information SWHMP can direct capital to properties with the greatest need for funding, thereby reducing utility costs and natural resource consumption.

SWMHP is unique in that it has a longstanding, mutually beneficial relationship with the Center for Sustainable Building Research (CSBR) at the University of Minnesota's School of Architecture. Since 2000, CSBR has held up SWMHP developments as good educational examples of how green material and construction techniques can be integrated into projects. The advantage is shared by SWMHP, whose knowledge of and ability to create technologically advanced and environmentally sustainable affordable housing has grown significantly.

GREEN SPOTLIGHT

GREEN WHERE IT COUNTS

MOST. Volunteer activities
and job sharing that
highlight green efforts
have been added to the
agendas of the three youth
career camps.

Amid challenges, SWMHP finds ways to maintain its history of quality work and high standards. When the agency found a lack of providers that could rate its developments, SWMHP staff attended training for Home

Energy Raters (HERS). SWMHP also observed traditional capital needs assessments prepared for properties lacked the incorporation of green features that would improve the living environment and create opportunities to reduce operating costs. As a result, SWMHP is adding two new business lines that will address the lack of available providers in these fields, while enabling the agency to continue to expand its green efforts to meet the growing needs for its services. To its credit, SWMHP has started a green capital needs assessment line of business that conducts long-term capital needs studies for other multifamily property owners. A special emphasis is placed on energy usage improvements and ways to green the scope for standard capital improvements. Adding to its commitment, SWMHP assesses its own portfolio to plan for future capital needs in an energy-efficient manner.

