

2011 Energy Star Award Application ***Excellence - Affordable Housing***

Demonstrated Success

Hampton Redevelopment and Housing Authority (HRHA) has demonstrated its commitment to be the local provider of choice for affordable housing. We have operated outside the box of normally expected functions for public housing authorities often partnering with the City to maximize redevelopment efforts. A key aspect of the revitalization process has been the removing of blight through the use of single family residential homes. To date 58 new homes have been completed, mixing small town charm with innovative materials and new construction techniques. These homes have been recognized with NAHRO Merit Awards and EPA Energy Star Program 2009 Regional awards.

The cost benefit to incorporate green building techniques can be difficult when dealing with income restrictions that often set low selling prices and even lower rental rates. However, as most of our homes are purchased by first time homebuyers, any decrease in the electrical bill may mean the differences between a success story and a foreclosure. The U. S. Department of Energy's Energy Information Administration has stated, "that more than 24% of the after-tax household income for Virginia's low and middle income families was spent on energy in 2008. In addition, 183,000 of the poorest families in Virginia falling beneath the poverty level, are the hardest squeezed with 49% of their after-tax income in 2008 going to residential and transportation energy bills".

The Authority's Construction Department has substantially renovated 23 homes since the inception of this commitment. During the year of 2010, work was completed on 6 residential single family homes that are being sold to low to moderate income families. As income restrictions established the home's selling price it is not cost-effective to incorporate home rating services or envelope testing expenses into the project. However, each home receives all of the Energy Star compliant features: insulation, windows, exterior doors, HVAC system, lighting and fans, high-efficiency water heater and dishwasher. Furthermore, additional efficiencies are passed onto the new homeowner with EPA WaterSense program compliant toilets, showerheads and faucets.

In 2004, an Energy consultant (outside the Authority's normal energy audits) was hired to explore the possibility of working with an Energy Service Company (ESCO) to make substantial upgrades. However, through the use of its Capital Fund Program and energy conservation planning, substantial improvements and upgrades had already been completed, leaving limited areas for any cost effective replacements. For example, approximately 15 years ago, the Authority installed ground-source geo-thermal heat pumps in 274 public housing apartment units. At that time, substantial savings were noted due to their "rated 31% efficiency over air-source heat pumps and 67% over natural gas furnace/AC systems". In 2010, as part of the American Recovery and Reinvestment (ARRA), HRHA replaced 100 of these 10 SEER units at North Phoebus with Energy Star compliant 14 SEER models. The recent upgrade may generate up to another 29% in energy savings. The projected savings could reflect as much as \$10,161 annually (Attachment A).

HRHA's marquee program for 2010 is the building of 27 affordable rental property townhomes with a combined square footage of 33,125. This mixed use multi-family project was designed and built to meet or exceed Virginia Housing Development Authority's 2010 Minimum Design and Construction Requirements (Attachment B).

These townhomes are also compliant with all status and regulations in the Virginia Uniform Statewide Building Code 2006 and the International Building Code 2006. These units are being certified an Energy Star Property by EarthCraft House of Virginia (an Energy Star Partner). Moreover, it should be noted, that as part of its 200 point system of design and certification Old Point Townhomes project was built to the most restrictive standard for the maximum of 90 points (Attachment C) for Energy Efficient Buildings Envelope and Systems.

As for the Authority's Old Point Townhomes Project it is projected that each tenant could be saving \$658.00 annually in utility electrical bills (Attachment D). Such savings factored into the calculations for the increased costs associated with the incorporation of Energy Star compliant equipment into the property, resulted in a best case scenario payback period of only 3.83 years.

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Institutional Change

HRHA has continually incorporated Energy Saving measures into all of its capital planning. We have endeavored to be compliant with current Federal and State Utility Conservation Measures and benchmarks established by Executive Orders. HRHA made a significant lasting change as an organization when it created a Construction Department nearly ten years ago. This department acquired a Virginia Class "A" Builder's Contractor's license and essentially became a general contractor for the Authority. The Construction Department prepares plans and specifications in-house, insuring that all the projects are fiscally responsible and every feasible energy efficient building technology has been incorporated. The Department also consists of specialists that perform cost-effective tasks to help reduce the labor burden. When developing budgets, no profit margin or inflated overhead expenses are included, allowing greater investment directly into upgraded physical features. The contract administration, construction management, quality assurance and quality control; all focus on establishing HRHA as the premiere provider of affordable housing in Hampton.

HRHA has continually faced financial challenges and institutional stereotypes when operating in the construction field. The new construction and substantially renovated residential single family homes have selling price ceilings mandated by income limits. Furthermore, the stigmas of public housing myths are dispelled through strict production oversight and the highest quality work. It is the Authority's goal to produce the best product and give the new homeowner the absolute best value.

This manner of operation has been successful on many different levels. First, the homebuyer receives a quality product that has a selling price lower than appraised or assessed value, which creates instant equity for the buyer. Secondly, the homeowners monthly utility expenses are drastically reduced by incorporating energy efficient features, such as; Energy Star compliant insulation, windows, doors, HVAC systems, appliances, lighting and fan packages, EPA WaterSense program toilets, shower heads and faucets. Next, work opportunities are created for small, minority and women owned and Section 3 businesses that normally would not exist. Finally, neighborhood stabilization is addressed as most of the housing authority's efforts are targeted at blighted areas or venture neighborhoods.

Our commitment to energy efficiency is also key part of the capital planning for our public housing projects (521 units). For example, in 2008 we replaced all the toilets, shower heads and faucet aerators with EPA WaterSense program compliant fixtures at North Phoebus Townhomes (100 Units). In 2009 we replaced the same water saving devices in Langley Village Apartments (146 units) and Lincoln Park Apartment Complex (275 units). For 2010, 100 ground source geo-thermal Energy Star compliant heat pumps were installed at the North Phoebus site. Moreover, we have scheduled in our 2010 approved Capital Fund Program budget to replace 275 water heaters with high efficiency models. Also, included for this coming year is the addition of ceiling insulation to R-38 Energy Star levels for the North Phoebus Townhomes. The Authority's five year action plan for the Capital Fund Program also contains the replacement of 246 range exhaust hoods, 100 bathroom exhaust fans, and 246 refrigerators, all with Energy Star compliant models.

HRHA in 2010 established itself as a model to other local developers by building Old Point Townhomes. This 27 townhome project is a practical example of Green Building. It utilizes green building techniques with capital planning that incorporates responsible fiscal decisions and efficient resource management.

Housing Affordability

First of all, the initial target market for all of our housing programs, are the citizens of the City of Hampton. Every housing project undertaken by HRHA is targeted at removing blight from the City. It will also have a fiscal impact on the residents as our new and rehabbed homes are put onto the City's tax role, generating income for a multitude of services. Furthermore, any capital physical improvements made to our public housing units can only reinforce our commitment to provide safe, sanitary, and aesthetically pleasing affordable housing for the extremely low, very low and low income families within the City.

The construction and renovation of residential single family home are funded through the use of Federal and Authority funds. These federal funds are part of the HOME Investment Partnerships Program (HOME) and Community Development Block Grant (CDBG). HRHA made a commitment nearly a decade ago with the formation of the Construction Department and to allocate a portion of their reserves to become the provider of choice for affordable housing within the City. The proceeds generated from the sale of these homes, is reinvested back into program. The turnover process allows an effect of

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perpetual construction in venture neighborhoods. For 2010 seven houses were being substantially renovated. The projected capital plan is ultimately to build 12 new homes and rehab 12 homes per year, earmarked for low to moderate income families.

The replacement HVAC system for the public housing site at North Phoebus was originally funded through the American Recovery Reinvestment Act (ARRA). However, due to the substantial cost of the project, the Capital Fund Recovery Grant had to be supplemented with additional Capital Fund Program funds. As with all public housing units, this market is utilized to improve the lives of families with income limits determined to be extremely low and very low.

HRHA's newest construction development is Old Point Townhomes. This rental property project is a mixed finance venture. It incorporates HUD Replacement Housing Funds and State tax credits. This Energy Star project will consist of 8 replacement housing units, serving the extremely and very low income participants. The remaining 19 townhomes will be marketed to low income individuals or families.

Outreach and Education

The Authority presents an Environmental Corner on its home web site (www.hrha.org) and Facebook account (Official HRHA Hampton Redevelopment Facebook Page) showcasing the steps that have been taken to make our public housing units more energy efficient. It also demonstrates our commitment to utility conservation measures with Energy Star compliance on new construction and renovated single residential family homes and provide tips and links for individual energy conservation.

"The "Green Side of HRHA" is a three part presentation of HRHA's commitment to Energy and Environmental Conservation (Attachment E). The "Being Green in Public Housing" documents efforts undertaken by the Authority at our public housing units. It details the efforts made by the Authority to insure that as we upgrade our units that environmental and energy concerns are addressed. This includes utilizing green building techniques whenever cost-effective; such as carpet replacement utilizing recycled content products, maximizing effects of increasing Indoor Air Quality with replacement of vinyl flooring and painting projects that use no or low volatile organic compounds. All replacement equipment such as: HVAC systems, entry doors, refrigerators, water heaters and exhaust fans were or will be Energy Star Compliant. Furthermore, the 100 North Phoebus units are scheduled for the addition of ceiling insulation to the Energy Star level of R-38. Efforts have been maximized to explore all alternatives, even features as detailed as choosing an Energy Star compliant roof color for 275 units at Lincoln Park, which would only qualify for one LEED point.

"More Green" represents the cost effectiveness of our conservation efforts to provide an energy star single family home. Specifications include Energy Star compliant HVAC systems, windows, doors, insulation, appliances, lights, ceiling fans and water heaters. HRHA further demonstrates its commitment to becoming a greener organization through the support of the EPA WaterSense program with the upgraded features as toilets, showerheads and faucets. It also has incorporated using approximately 25% of recycled or pre-engineered lumber into its construction process. It hopes to improve this to 40% in future construction efforts.

The third part of the presentation is a brief overview of the Energy Star project, Old Point Townhomes, and the required steps to become an EarthCraft project.

The website application also provides a link to the Energy Star website "Save Energy at Home" site and the EPA WaterSense program site.

The Authority provides a full listing of upgraded features of our houses to the real estate consultant representing the Authority to inform potential homebuyers and homeowners of the energy saving products in the home. Once a home has closed, the Authority has developed a checklist of items to review with the new homeowner. This is designed to insure that they understand all of the homes features and amenities. Operation of the heat pump system, window operations, digital programmable thermostat and appliances are all demonstrated at this time. Homeowners are informed that the Authority has integrated the most aggressive Energy Star lighting package (all the lights and fans) into their home and the cost savings/benefits associated with continuing to utilize Energy Star products.