



Downwinders

reducing toxic air pollution in north texas *at risk*

Applicant Information Form Sue Pope North Texas Pollution Reduction Program

Organization:	Home Builders Ass'n of Greater Dallas Green Built North Texas
Organization type	Non-Profit Trade: 501(c)(6)
Organization Street Address:	5816 W. Plano Pkwy.
City, State, Zip	Plano, TX 75093

Project Officer (Title, First, MI, Last, Suffix):			Director of Green Building Programs, Phil Crone		
Phone ext	214-624-3178	Fax	972-267-0426	Email	phil.crone@dallasbuilders.com
Project Name		<i>Project Zero</i> and Expansion of Program Capabilities			
Location of Project		Throughout North Texas			
Project Start (MM/DD/YYYY)	Date	Upon receipt of funding			
Project End (MM/DD/YYYY)	Date	Indefinitely			

BUDGET: Please summarize your budget request in the space provided. You should also provide a more detailed budget in your preproposal.

Line Item	Requested Funds	Matching Funds
Salaries and Benefits	\$75,000 (over 3 years)	\$150,000 (over 3 years)
Equipment	\$60,000	\$320,000 (Project Zero builder and sponsors)
Other:	\$65,000	\$106,000
Total:	\$200,000	\$556,000

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Preproposals shall be no longer than five pages, and should include a description of the activities for which the applicant requests funding, the deliverables and environmental results, a detailed budget, and project timeline. Applicants should specifically address the two review criteria and identify the project activities that will address each of these criteria. All preproposals should also include the applicant information form (attached to this program announcement). Please provide us with additional information regarding the project



Sue Pope Fund Grant Request

- Implementation of Project Zero, Increasing Awareness of New and Remodeled Green Homes, and Expanding One of the Nation's First Green Home Registries

About the Home Builders Association of Greater Dallas (HBA)

The Home Builders Association of Greater Dallas (HBA) is a 1,700-member non-profit trade organization chartered by the State of Texas, and which has been granted tax-exempt status under Section 501(c)(6) of the U.S. Internal Revenue Code.

The HBA's mission is to enhance its members' ability to provide safe, affordable, quality housing to the citizens of local communities. It does this by providing industry information, promulgating industry standards, educating its members and awarding professional excellence. The HBA membership is comprised of businesses and individuals engaged in multifamily and single-family building, residential land development, remodeling, rehab and repair, and general light construction. Its Associate members are companies and individuals who provide materials, products, financing and many other services, including subcontracting, to builders and developers.

Established in 1944 as an affiliate of the National Association of Home Builders (NAHB), the HBA has a seven-county jurisdiction consisting of Dallas, Collin, Denton, Ellis, Hunt, Kaufman and Rockwall counties. It is additionally affiliated with the Texas Association of Builders (TAB). This means that members of the Greater Dallas Association automatically are also members of NAHB and TAB. Together, the three Associations (local, state and national) form one of the nation's largest and strongest trade organizations, as befits an industry of such fundamental importance.

Green Built North Texas (GBNT): Program Background

In August, 2006 the HBA introduced a green building program now known as Green Built North Texas. Since then the program has grown from a small band of eco-conscious home builders into one of the nation's most successful green building initiatives. GBNT finished last year with more than 200 members, was featured at the U.S. Green Building Council's International Greenbuild Conference in Boston, and was honored by the National Association of Home Builders (NAHB) as their Green Building Program of the Year.

GBNT's construction protocol addresses strategies for site development, water efficiency, energy efficiency, indoor air quality, materials usage and homeowner education. Last year the program combined

this protocol with an innovative home verification and registration process, resulting in some of the largest green building commitments in the nation to date.

The verification process also enabled GBNT to create one of the nation's first interactive registries of green homes, which enhances the builder's sales prospects and provides a unique consumer resource. The more than 1,600 homes currently registered with the program include some of the largest builders in the state with sales prices starting in the \$120s, making GBNT a leader in providing affordable green homes to North Texans. Thanks to the GBNT protocol's emphasis on water and energy efficiency (requiring ENERGY STAR certification with a HERS Index of 83 or below), the program has already produced substantial environmental benefits. Recently, GBNT added a multifamily component to its program that addresses strategies for low and mid-rise construction, making it one of the first programs to directly address these projects.

GBNT has made it a primary mission to form partnerships that will help advance awareness and interest in green building. Much has been written about the competition between the U.S. Green Building Council's LEED for Homes (LEED-H) program and NAHB's recently-published National Green Building Standard (NGBS) for national market share. GBNT has created alliances with both of these programs making compliance with each an alternate method to obtaining the GBNT brand and being listed on the registry. Knowing that each program offers a bona fide way to build green, the program wanted to bring an end to this national debate and offer both as additional options for the builder and home buyer to consider.

These alliances not only further awareness and knowledge of the benefits of market-driven green homebuilding by focusing the resources of both programs under one roof, they also establish Green Built North Texas as the region's green building clearinghouse. With this business model in mind, the program's members and staff contributed to task force that developed the City of Dallas's green building ordinance last year, which recognizes both LEED-H and GBNT as paths to compliance

Due to the demand of builders already constructing GBNT homes in markets outside DFW, the desire of local HBAs to have a basis to cultivate their own green building initiatives and the need for a dynamic program that helps coordinate the various public and private sector initiatives and incentives; the program has also explored the possibility of establishing itself as an independent statewide green building program to be known as Green Built Texas. The Fort Worth Builders Association has already adopted the GBNT program, increasing the program's coverage to each of the 16 counties that the Sue Pope Fund aims to make a difference in.

Although the recent downturn in the home building industry has not diminished the demand for resource-efficient homes, it has reduced the resources that the HBA can provide to sustain and advance this valuable initiative. However, with the help of the Sue Pope Fund, GBNT can continue its growth and increase the benefits it offers to DFW's home buyers as well as this region's air quality.

Budget and Program Costs

The annual budget for Green Built North Texas is enclosed along with the proposed distribution of the grant funds requested. Currently, most of the HBA's resources in support of the program are spent on special events aimed at increasing awareness in the program and repaying the investment made to produce the home registry. Income is derived primarily from builder dues and sponsors, special events, and home registration fees (\$30 per single family home). When the HBA's staffing expenses are factored into the equation, little remains to market the program, for it to develop new resources, or to hold ambitious events such as *Project Zero*, which better serve the DFW region.

Specific Request for Funding and Projected Net Outcomes

In order to advance and accelerate Green Built North Texas's goal of increasing awareness and interest in resource-efficient residential homes across North Texas and reducing key emissions and other pollutants that impact human health, the program respectfully requests a grant in the amount of \$200,000.

The program would use the funds to continue its efforts to increase consumer awareness and spur further demand for high-performance homes throughout North Texas. It would also provide hands-on educational opportunities for the nearly 3,000 industry professionals that rely on the Dallas and Fort Worth Builders Associations for their green building information.

- Implementation of Green Built North Texas *Project Zero* (described in more detail below);
- Development of a remodeling protocol based on the upcoming Home Performance with Energy Star Program and necessary case study to examine costs and to quantify environmental benefits;
- Increase capabilities of the home registry software to include this new program component;
- Design and distribution of collateral materials;
- Education programs aimed at coordinating the efforts and understanding the roles of verifiers who identify home deficiencies and contractors who perform key improvements;
- Consumer education events;
- Increasing consumer and builder awareness of various incentives and rebate programs including Onco rebates and federal tax credits;
- Radio broadcasts; newspaper and magazine articles; media advertisements;
- Website development;
- Salary for a part-time staff member to perform the program's administrative functions and develop its website; and
- Other strategies deemed appropriate and necessary.

Green Built North Texas Project Zero

Dubbed the "holy grail of green building," net zero energy homes demonstrate the pinnacle of green building technology and where programs such as GBNT hope to lead the residential home building industry with the help of increased incentives for renewables and decreased costs of high-performance products. GBNT's *Project Zero*, endeavors to show builders, consumers and municipal leaders the practices and techniques needed to build a home that produces more electricity than it generates, from the ground up.

With the assistance of Green Built North Texas and the Sue Pope Fund, Chris Miles of GreenCraft Builders, LLC is prepared to construct a net zero energy home, which, throughout its construction, will be used for numerous consumer and builder events as well as a documentary video production. Beginning in April, the existing structure will be dismantled and recycled or donated to Habitat for Humanity. Construction on the new home will begin in late-May and net zero energy achievement will depend on materials donated by corporate sponsors and contributions by the HBA through monies received under this grant application.

Mr. Miles's past projects include the Energy Value Housing Award-winning Bannister High-Performance Home in Grapevine and the Colleyville Eco-House. These homes were toured by nearly ten thousand consumers and builders from around the nation. *Project Zero* intends to reach an even larger audience.

The *Project Zero* home is projected to be around 3,500 square feet and cost nearly \$350,000 to construct. Keeping in mind that a home in this price range is not obtainable for everyone, the program will emphasize individual components and techniques that builders and consumers can employ on less expensive new construction and remodeling projects.

GBNT will also look for an existing home near *Project Zero's* Lewisville location that will allow attendees to see the small steps they can take to make a big difference in their own homes. This home will also serve as the flagship project for the new Green Built North Texas remodeling program. GBNT would like to devote \$25,000 to enable one of the HBA's hundreds of remodeler members to make these improvements on the home for a family in need.

When combined with expected contributions by the program's current corporate sponsors and the additional funding the program requests in this grant, it is estimated that a total of \$65,000 will be needed to produce the promotion, events and construction materials needed to achieve the goals of this specific project. The strategies employed and lessons learned throughout this project will produce timeless benefits for all involved and empower them to achieve significant emissions reductions and energy savings on future projects they build or purchase.

Establishment of a Remodeling Program

Using *Project Zero* as a launching pad, the program intends to develop a remodeling program that centers on the upcoming *Home Performance with Energy Star* program and other strategies aimed towards at least a 20% performance improvement on each participating home. Beyond the emission reduction benefits generated by these GBNT homes, the remodeling protocol will include other beneficial items such as carbon monoxide detectors, fresh air intake systems, high-performance appliances and fixtures, low VOC paints, and formaldehyde-free products. These items have distinct environmental benefits of their own and will be beneficial to those with increased sensitivities to indoor allergens and to our precious water resources.

Part of the program's promotional budget will focus on raising awareness of this new program. The best vehicle for doing this is the program's interactive online home registry. The home registry is one of the key marketing components of the GBNT program. This unique and valuable sales tool is a product of the program's verification process because verifiers are required to upload homes at the pre-drywall stage of construction to be listed online in the "under construction" portion of the registry. Once final inspections are complete, the verifier moves the home to the "completed" portion of the registry and a certificate of registration is made available via the verification software for a builder to present to their buyer at closing. Consumers are able to find GBNT projects online at GreenBuiltNorthTexas.com by builder, city, state, zip code and stage of construction.

The registry is perhaps the first of its kind in the nation and the HBA would like to do much more to inform consumers of the projects that can be found there. In addition to the marketing strategies noted above, resources provided by the Sue Pope Fund would significantly expand the sales capabilities of the registry.

These improvements would include adding the ability to find remodeled homes for sale, indicate specific new homes that are for sale, and enable verifiers to upload reports from the Texas A&M Energy Systems Laboratory IC3 software. This will provide the program with a bona fide way to quantify its emissions reductions. Since all projects are issued a certificate of registration that is generated by the registry software and they remain permanently listed there, the registry could increase the resale value of the new and existing homes contained in it.

Anticipated Environmental and Public Impact

New Green Built North Texas homes must achieve a HERS (Home Energy Rating System) Index of 83 or below. Therefore, these homes are at least 17 percent more energy-efficient than a home built to the International Energy Conservation Code (IECC). By increasing demand through promotion of its home registry, the program endeavors to register 8,000 additional new homes and multifamily projects on its registry over the next three years, in addition to the 1,500 it delivered last year.

New homes built to the Green Built North Texas protocol achieve the following estimated annual, per home, emissions reductions compared to a home built to base energy code: CO₂ – over 4,000 pounds or a 12% reduction, NO_x - over 9 pounds or a 12% reduction, SO₂ – over 10 pounds or a 13% reduction. Even more reductions are associated with the program's low and mid-rise multifamily projects, which require a 15% above code energy efficiency achievement.

By reaching the goal of 8,000 new GBNT homes, the CO₂ emissions could be reduced by more than 32 million pounds, NO_x emissions by 72,000 pounds, and SO₂ emissions by over 80,000 pounds. These numbers are compounded annually as these resource-efficient homes continue their environmental benefits every year they are in existence.

Additionally, with the help of the Sue Pope Fund, the HBA aims to facilitate energy upgrades to more than 2,000 homes by year 2012. The energy upgrades performed on these homes will have enormous air quality impacts while preserving neighborhoods and making homes more affordable, functional and desirable.

When the goal of 2,000 homes is reached, the estimated emission reductions will total more than 100 million pounds of CO₂, more than 211,000 pounds of NO_x, and more than 209,000 pounds of SO₂. It should be again noted that these numbers would be compounded annually as these homes will sustain their environmental benefits every year following their upgrades.

To further aggregate the emissions reductions associated with new and existing Green Built North Texas homes, the HBA will expand on its ongoing relationship with Green Mountain Energy Company (GMEC) by encouraging owners of GBNT homes and visitors to the program's website to switch to this environmentally-responsible energy provider. In return, the program will be able to offer a gift card to the consumer, the purchase of which will be funded entirely by the referral fee received from GMEC.

While buildings account for around 40% of the nation's greenhouse gas emissions, new homes built in the last ten years are only 2.5% of this problem. This region's housing stock is no different. Most homes currently have old HVAC systems, leaky ducts, single-pane windows and compressed attic insulation. These are exactly the problems that the Green Built North Texas program will address with help from the Sue Pope Fund.

Although the numbers identified above are for a three year time frame, a one-time investment by the Sue Pope Fund in Green Built North Texas will yield efficient and affordable housing and ongoing reductions of key emissions to the region for many years to come due to the lessons learned from *Project Zero* and the establishment of new program components.