



PROJECT/PROGRAM REQUEST: AeroBarrier Energy Efficiency Upgrade

TOTAL COST: \$19,250

REQUESTED SUPPORT: \$2,025

COMMITTED SUPPORT: \$13,750 (In-kind donation from Northwest AeroBarrier), \$2,225 committed in matching donation from Zero Energy Project, \$100 from BaseZero, \$100 from Dream Home.

REQUEST INFORMATION: Kôr Community Land Trust is currently developing 5-attainable homes in partnership with Housing Works of Central Oregon. The two-bedroom, two-bath homes will be sold to qualified local residents who contribute to the fabric of our community and economy and would otherwise not be able to afford to put their roots down in Bend.

The homes are being designed and built to the energy efficiency goal of net-zero energy usage for the residents. This means that the homes will be able to produce all required power through clean, renewable solar energy and results in the residents of these homes having no power usage bills. These net-zero energy outcomes are incredibly important to the long-term economic success of the residents, as well as providing long term benefits to the environment. To help achieve this important and worthy goals, NorthWest AeroBarrier has committed a substantial amount of in-kind support for the installation of their product.

The AeroBarrier home envelope sealing process addresses the critical energy efficiency component of uncontrolled air leakage in a home. It is a non-toxic, elastomeric sealant with an automated installation process that air-seals the home envelope using a physics-based, aerosol application technology. The AeroBarrier technology replaces and dramatically improves upon conventional strategies of hand applying foams, caulks or tapes. The process provides real-time measured results verifying the dramatically reduced envelope air leakage.

The success of net-zero energy construction is based on significantly reducing the energy consumption of the home. This is done through enhanced energy efficiency measures including the reduction of energy lost through envelope air leakage. This air leakage is measured in Air Changes Per Hour (ACH). A conventional new construction home in Oregon typically leaks at 4 ACH to 6 ACH. To affordably achieve net-zero energy performance the air leakage should be under 1 ACH50. The AeroBarrier technology achieves these results quickly, reliably and with real-time documentation. Energy modeling shows this reduction in air leakage to reduce the insulation needs of the home by up to R-10 and to reduce the number of solar panels required on the house to achieve net-zero, both economic benefits to the success of the project.

There are only a handful of options available to builders to achieve envelope air tightness of 1 ACH or better. Unlike the other options, AeroBarrier provides a single-step, quick, non-toxic, low carbon footprint, measurable result making it the most effective, environmentally friendly, logical choice.

Kôr's homes are deed restricted using the traditional community land trust model of individually owned homes on trust owned land. This model assures that the homes are affordable in perpetuity, making any investment of subsidy a permanent investment into the community that we all love. Thank you for your consideration of this request.