

WE ARE...

We are excited to bring back our quarterly newsletter!

This newsletter comes from a design firm that has been driven to create design solutions which provide for energy efficiency and a healthy environment (both indoors and outdoors) for over four decades.

SUSTAINABLE...

“EXAMINE EACH QUESTION IN TERMS OF WHAT IS ETHICALLY AND AESTHETICALLY RIGHT, AS WELL AS WHAT IS ECONOMICALLY EXPEDIENT. A THING IS RIGHT WHEN IT TENDS TO PRESERVE THE INTEGRITY, STABILITY, AND BEAUTY OF THE BIOTIC COMMUNITY. IT IS WRONG WHEN IT TENDS OTHERWISE.”

-ENVIRONMENTALIST ALDO LEOPOLD (1886-1948),
A SAND COUNTY ALMANAC, 1948



http://farm3.static.flickr.com/2438/3894941219_927715601d.jpg

ARCHITECTURE...

Easy Things to do:

An ENERGY STAR labeled computer uses 70% less electricity than computers without this designation. If left inactive, ENERGY STAR labeled desktop computers enter a sleep mode and use 4 watts or less. Spending a large portion of time in low-power mode not only saves energy, but helps equipment run cooler and last longer.

However, they only save energy when the power management features are activated, so make sure power management is activated on your computer. [READ MORE...](#)



<http://img4.southernaccents.com/i/2009/04/architect-client-l.jpg?400:400>

Lawrence Habitat for Humanity:

If you haven't heard already the Lawrence Habitat for Humanity chapter has received certification for the two latest homes built to ENERGY STAR standards. We are proud to be a part of the team that made this possible along with all of the Habitat volunteers and staff, construction personnel, supportive local subcontractors, and most of all, the families with whom the homes are built. The ENERGY STAR standards were not overly difficult to achieve but a concerted effort to follow them was headed by volunteers and staff. Although these latest homes were the first to be certified as ENERGY STAR homes for our affiliate, only minor changes to our "normal" construction process needed to be made. This is very good because it means our previous Lawrence Habitat homes are close to ENERGY STAR standards as well. [READ MORE...](#)

Meadowlark House:

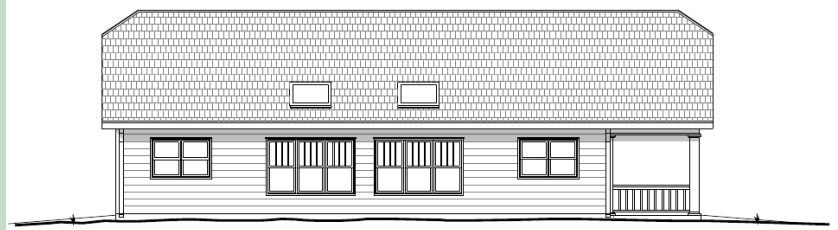
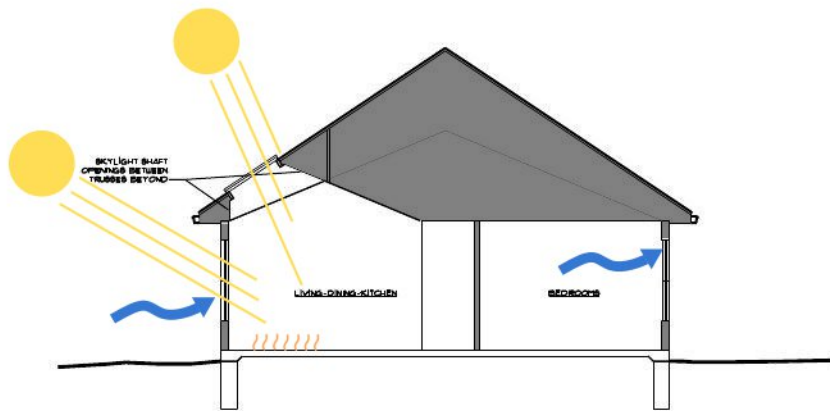
In our previous newsletter we mentioned our involvement with the rebuilding efforts that are on going in Greensburg, Kansas. Since then the "Chain of Eco-Homes", sponsored by the non-profit organization Greensburg Greentown, has selected winners from the international design competition it held in conjunction with FreeGreen.com, an organization in Charleston, Massachusetts. We are currently acting as a local consultant to Greensburg Greentown in the final design and construction process for the Meadowlark House, the winning design that will be built in Greensburg. The design was created by Michael Stevens of Steven Learner Studio located in New York City and uses the innovative HIB modular wall system conceived and crafted in Germany. [READ MORE...](#)



Courtesy of Steven Learner Studio, New York City.

This and That:

In addition to the pro-bono work we do with Lawrence Habitat for Humanity we also have recently been engaged by the local non-profit Tenants to Homeowners. This organization provides housing ownership options for many low-income families. The house we designed will be an "infill" project in an established neighborhood and will be located at 2123 Rhode Island St. in Lawrence, Kansas. The home was designed to facilitate passive solar principles and be highly energy efficient. We hope to break ground very soon. We applaud the steps Tenants to Homeowners have taken to incorporate sustainable design concepts on all of their projects and look forward to continue working with them in the future. [READ MORE...](#)



USEFUL WEBSITES WHICH CAN PROVIDE YOU WITH MORE ENERGY AND ENVIRONMENTALLY CONSCIOUS INFORMATION ARE:

[HTTP://WWW.LAWRENCEHABITAT.ORG/](http://www.lawrencehabitat.org/)

[HTTP://WWW.PERFORMANCEPLUSHOMES.NET/](http://www.performanceplushomes.net/)

[HTTP://WWW.HIB-SYSTEM.COM/INDEX.PHP?CLANG=1](http://www.hib-system.com/index.php?clang=1)

[HTTP://WWW.DSIREUSA.ORG/](http://www.dsireusa.org/)

[HTTP://NATURALSTRATEGIES.COM.AU](http://naturalstrategies.com.au)

[HTTP://WWW.EERE.ENERGY.GOV/](http://www.eere.energy.gov/)

[WWW.BLUESKYGREENEARTHMAG.COM](http://www.blueskygreeneearthmag.com)

[HTTP://WWW.FREEGREEN.COM/](http://www.freegreen.com/)

[HTTP://WWW.STEVENLEARNERSTUDIO.COM/](http://www.stevenlearnerstudio.com/)

[WWW.ENERGYSTAR.GOV](http://www.energystar.gov)

[HTTP://WWW.GREENSBURGGREENTOWN.ORG/](http://www.greensburggreentown.org/)

[HTTP://WWW.TENANTS-TO-HOMEOWNERS.ORG/](http://www.tenants-to-homeowners.org/)

Notice:

*Whether or not you found this newsletter interesting, if you know of someone who you think might... .. please forward this on to them.

*If you would prefer to never, ever, receive another one of these newsletters from us, please let us know, and we will happily "delete you from our memory".

*If you received this newsletter "forwarded from a friend", can't wait for the next issue, but don't trust your friend to forward it to you a second/third time, please contact us and we will add your email to "the list".

*If, for some reason you feel compelled to print any portion of this newsletter, please (if possible) use recycled paper, a recycled toner cartridge, and be sure to recycle once you are done with the newsletter. (Thank you!)

This newsletter was produced by J. Stephen Lane Architect.
Designed by Jacob Brewer.
Email: jsla-newz@sbcglobal.com

Easy Things to do:

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On a windy day, carefully hold a lit incense stick or a smoke pen next to your windows, doors, electrical boxes, plumbing fixtures, electrical outlets, ceiling fixtures, attic hatches, and other locations where there is a possible air path to the outside. If the smoke stream travels horizontally, you have located an air leak that may need caulking, sealing, or weather-stripping.

Clean out your vehicle. If you haven't taken a drivers licensing exam recently, there's a new question; how much does an extra 100 pound of excess weight reduce fuel economy? 2%! Clean it out for better gas mileage.



http://humanityy.com/wp-content/uploads/2010/08/ECO_FREINDLY_CA



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The process of achieving the ENERGY STAR standards for the homes required that we integrate a "third party" inspector into our construction process. A certified Home Energy Rating System (HERS) energy rater, in our case Bruce Chyka of Performance Plus Homes, determined each home's HERS rating. The HERS Index scale was developed to indicate an ENERGY STAR home's energy consumption compared to a similar home built to current required energy code standards (100 on the scale) and a zero energy use home (0 on the scale). The first home we built to ENERGY STAR standards scored a 77 HERS rating. The second home we built was an improvement, dropping the score to a 69 HERS rating. In both cases these scores indicate that each home conserves over 20% more energy than a standard code compliant home (23% more for the first home and 31% for the second home). Beyond reducing energy costs and the environmental impact for the property owners, this certification also qualifies Lawrence Habitat for Humanity to receive a \$3,000 grant through the Partners in Sustainable Building program sponsored by Habitat for Humanity International and the Home Depot Foundation.



The Abdelbanat Abduljabbar family home.

While these achievements are significant steps towards creating a more sustainable future, we hope that these efforts become the status quo. ENERGY STAR ratings are simply the most basic nationally supported criteria in the effort to create more energy efficient and sustainable homes. We are challenging ourselves by adopting design and construction solutions that have been proven to increase efficiency but are also cost effective. Simply reducing the uncontrolled infiltration of outside air in either cold or hot weather greatly improves energy efficiency. "Caulk is cheap!" is a motto that has become popular. This dedication to sustainable practice will yield many more homes that operate at lower costs to our families, a goal beneficial to all parties involved and to the wider community as well.

For volunteer opportunities, please contact the Lawrence Habitat Office or drop in for a visit.

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Lawrence, Kansas 66044
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Courtesy of Steven Learner Studio, New York City.

It was important to Steven Learner Studio’s design team to create a home that is both visually appealing and systematically efficient. The HIB modular wall system provided the basis from which the design took shape. HIB walls are “lego-like” wooden blocks which stack and interlock to create exterior and interior walls. This system allows for a highly efficient construction process and the capacity to create exterior walls with R-values of 29-35. With such a high insulation value the design team decided to pursue the concepts of energy efficiency outlined by the German Passivhaus model. This model is contemporary to US standards such as LEED but is more strenuous in some of its requirements. To meet these requirements, issues concerning orientation, passive use of solar energy, highly efficient glazing (low U-factors across the entire window and solar heat-gain coefficients around 50%), airtightness (less than 0.6 times the house volume per hour), ventilation, hot water supply (using regenerative energy sources), space heating, and use of highly efficient lighting and electrical appliances were all considered and/or incorporated. For more Passivhaus specifics check this out: [HTTP://WWW.PASSIVEHOUSE.US/PASSIVEHOUSE/PHIUSHOME.HTML](http://www.passivehouse.us/passivehouse/phiushome.html).

As acting local consultants we are helping to coordinate the transfer of the design intent to become a physical structure. During this process we have had many international and national phone conferences to work out the specifics. This has been a fun and rewarding experience. Informing others thousands of miles away about local codes, conditions and techniques is a challenge even without a language barrier. Overall, amicable relationships have been formed which we hope to carry on into the future. Currently, HIB is manufacturing the required blocks for the home and anticipates shipping them to the states within the month. If this process proves successful, it is their goal to offer the manufacture of the HIB components in this country. It has been the goal of Greensburg Greentown to break ground on May 4th, 2011, the 4 year anniversary of the tornado that leveled Greensburg. This is looking more and more likely as construction documents are being approved in rapid succession and the necessary materials and trades are being assembled. With any luck this home will be completed by summer’s end!



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The house is designed in the bungalow vernacular of many of the other houses in the surrounding older community. Advanced framing techniques reduce heat transfer through the exterior walls and also allow for increased levels of insulation. Technically advanced windows reduce heat loss and are placed to take advantage of solar heating. Insulated, stained, polished and sealed concrete floors will be attractive and provide a means of thermal storage. The intent of the design is to lower the energy demands and to allow for the use of a smaller than normal but also highly efficient heating and cooling system to lower energy cost.

We have also continued our work with Friends of JCDS as they continue to provide homes for physically and mentally challenged individuals in Johnson County, Kansas. These Friends of JCDS homes are remodeled single family houses purchased in existing neighborhoods throughout Johnson County and are designed to provide an opportunity for a traditional suburban lifestyle for their occupants. To date we have worked with Friends of JCDS on six of these remodeling projects recently dedicating Friends House No. 11 in Shawnee, Kansas. We look forward to finding more opportunities to improve lives through such affordable, accessible and environmentally responsible living opportunities.



Friends House No. 11 in Shawnee, Kansas.