



AN ENVIRONMENTALLY FRIENDLY HOME and LANDSCAPE, Part 1

by Bernadell Larson, HCMG

Sustainable (Green) Building is a growing industry and catching on with homeowners as they look for ways to conserve energy and to recycle waste. In 2008, the expected share of the housing market attributed to green building is 6%, which is up from just 2% in 2005. There have been an estimated 332,900 sustainable/green homes built since 2005, and \$296,000 is the average price of sustainable/ green homes built since 2005. (The source for these statistics is the McGraw-Hill Construction Research & Analytics survey prepared for the U. S. Green Building Council.)

The U S Green Building Council (USGBC) developed the LEED For Homes project, which requires an independent third party rating system to ensure consistent application of the green building principles. The rating system is intended to be an effective tool for introducing green/sustainable practices to a significant portion of the new home building marketplace. Initially, LEED for Homes is targeting the top 25% of homes which best practice environmental features. Once the new home process is streamlined, the USGBC would like to extend the program to the rest of the marketplace, and also home remodeling projects.

There are several specialized areas of green home design and planning that are required to be certified as a LEED Home. The third party doing the rating collects in-field data about the LEED Home and prepares a project documentation file. The file includes the completed LEED for Homes Checklist, Performance Test reports, and the Completed Accountability Form. All this information is used to determine if the home qualifies for one of the four LEED ratings (Certified, Silver, Gold and Platinum, in that order).

Of the 8 areas of Accountability (Innovation and Design Process, Location, Sustainable Sites, Water Efficiency, Indoor Environmental Quality, Materials and Resources, Energy and Atmosphere, and Awareness and Education) we will focus on Sustainable Sites and Water Efficiency.

In the Sustainable Sites category, there are 5 major areas where points can be earned and documented on the Accountability Form. In each area there are requirements that may be mandatory or optional measures that, if followed, will earn additional points in the rating process.

1. Site Stewardship: The intent is to design and construct the building with minimal impact of the building lot. The mandatory measures are 1) Minimize disturbed areas of site if the site is greater than 1/3 acre, by developing a tree and plant preservation plan, and leave at least 40% of the previously undeveloped lot area undisturbed; 2) Design and install erosion controls during construction by stockpiling and protecting existing topsoil from erosion for reuse, stabilize soils that have been disturbed, control the path and velocity of runoff with silt fencing or comparable measures, provide swales to divert surface water from hillsides, and protect on-site storm sewer inlets with straw bales, silt fencing, silt sacks, or rock filters. The selection of the location of the home's footprint on the building lot has a large impact on the natural drainage flows and may have adverse effects on the neighboring land. The home should be located to complement, not interfere with, the existing site features.

2. Landscaping: The intent is to design and install landscapes features that minimize demand for water and synthetic chemicals. The mandatory measures are: a) a basic landscape design, which includes installing drought tolerant turf in sunny areas only; b) no turf in densely shaded areas; c) areas planted with turf should not exceed a slope of 25% (i.e. a 4 to 1 slope) and do not use invasive or exotic plant species (as identified by local AgriLife office) Lots less than 1/10 of an acre are exempt. The optional measures are: a) apply mulch that will improve soil structure and provide nutrients as it decomposes; b) limit turf as noted in LEED-H documentation. The amount of recommended turf depends on the annual precipitation the region receives; c) design plantings to minimize landscape water demand as specified in LEED-H documentation. Points are awarded based upon a combination of percentage of drought tolerant plants used and annual precipitation for the region.

The remaining three major areas in the Sustainable Sites category are shading of hardscapes, surface water management, and non-toxic pest control.

Remember, the placement of the building on the lot and the landscape plan is extremely important in minimizing our disturbance of nature's design. Focusing on native plants, mulch not sod, rain harvesting, and drip irrigation will help achieve a better balance for everyone.