

## Silver Spring is LEED-ing in Green

The concept of green building, or more sustainable building residential applications, has so far lagged behind commercial applications, mainly due to costs. It is more expensive and involved to retrofit existing housing stock to make them 'greener'. So for most home-owners, higher short term costs outweigh the long range advantages in energy savings, sustainability, and recouping of installation costs.

As realtors we are increasingly interested in a future that includes more green options for housing. We need to be part of the movement that advances the conversation from a concept of green, to a tangible and 'making a difference' green, since we are involved in every aspect of that important commodity we call housing.

That's one of the reasons to highlight 7981 Eastern Ave. in Silver Spring, a cohousing condo building, and certified (Silver) Designated LEED Green Building since 2005. This building stands out as a perfect example of integrated green for 100 residents, in the bricks and mortar sort of way.

This building, at the 'gateway' between DC and its close-in suburb to the north, Silver Spring, combined enough requirements established by LEED (Leadership in Energy and Environmental Design) in five categories to qualify for a Silver Certification: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, and Indoor Environmental Quality. It was certified under the New Construction and Major Renovation category. This was possible thanks to a team that included: Sustainable Design Consulting, ECO Housing Corporation, Poretzky Building, and others. This residential building also won the National Association of Home Builders 2005 Green Project of the Year (Luxury Multifamily).

The interesting history... from 1957 Office Building to 2005 Green Pad

7981 Eastern Ave. was once an office building of the non-descript kind, 92,600 sq. ft. on 4 floors, mostly concrete, nestled on the border between DC and Silver Spring. Midway thru its life, it had become obsolete as office space, and sat vacant for more than a decade before being rescued by green forces in 2003. Endowed with an ideal location, it now allows residents to dispose of their fossil fuel transportation systems (cars), and instead use the Metro, bus routes, or bicycle paths to go shopping, get to work, in fact do everything a daily life requires. It's easy to see it was only a matter of time before its 21<sup>st</sup> century potential would be discovered. (Sustainable Site for LEED)

The nitty-gritty....2003 to 2004

Now for why 7981 Eastern Ave. Silver Spring is a LEED-ing force in residential green.

Let's start at the top with a living roof. Welcome to 1,900 sq. ft. of heat absorbing native vegetation, water retention and collection. Other usable areas of the roof include foot paths, a playground suited for the tiniest tots with its padded recycled rubber bedding, and a gazebo for enjoying the breezes or beautiful park view.

Standard for construction at the time, the walls were retrofitted and made thicker with extra insulation to seal in heat or air conditioning, as well as stop drafts. The front of the building was outfitted with an

energy saving 'green screen'. This screen consists of strategically placed metal scaffolding where deciduous vegetation grows during the summer months to 'cool' the building. In the winter when the vegetation is dormant, this screen allows for available passive sunlight to heat the building.

It's a fact that buildings account for 35% of total energy use, therefore, at the top of the list for a 'greener' building is its energy use, and avoidance of the same. That brings up the most interesting energy saving feature of this building, its geothermal heating/cooling system. A series of holes bored to the water line, the geothermal system is, in this case, 60 pipes that bring up water at a constant 50-55 degrees. Once it reaches ground level, it can either be heated or cooled, depending on the time of the year. The energy use consists of the cooling or heating differential. Also noteworthy is the fact that residents in this building purchase electricity in ways that support clean electricity generation. While an expensive part of the project overall, the geothermal system recovered its investment cost much sooner than expected, due to the rising energy costs in a comparable building without a geothermal system.

Other integrated green elements would be its large windows, and use of low-E coated glass to reduce solar heat gain. Other measures that help energy use are high ceilings to bring in more daylight, use of skylights or sun tunnels, and light wall colors that maximize light reflection.

The building was 85% renovated, using the original footprint. The area used for parking became an entrance courtyard with geothermal pipes underneath. The 85% renovation was accomplished by making the re-use and recycling of existing materials paramount. 1,206 tons of materials were taken out of the building and recycled. The new materials used were obtained from less than 500 miles away, conserving resources that would have otherwise been used in transport. Recycled products include rubber surfacing, metal trellising, structural steel, studs, insulation, roofing, gypsum board, carpet and carpet pads.

This enviable list of green attributes in a residential building is of course not a chance occurrence, but the result of integrating long range holistic green design, from planning stage to execution. It serves as proof positive that residential applications and 'green' technologies can be married and achieve practical and mutually beneficial lives together. One good example of such a marriage is 7981 Eastern Ave, since 2004, and is available for all 100 residents to enjoy well into the future.

I believe the reason green innovations in residential real estate are few and far between due to the fact that it's still beyond the pocketbook of the regular home owner, and only available to major projects with major investment dollars. Many efforts are being made to change that, from incentives to awareness, but it's still evident that if we want 'green housing', and not just green commercial real estate, it needs to be available to many more residents.

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