



## The Green Architect

By Blair Seibert, AIA, LEED AP

*Originally published in December 2006 in the San Fernando Valley AIA "Elevations" newsletter*

### Green Development

For many people, development is synonymous with disturbance and destruction of the natural state of things. Many developers, however, are showing us the way around this negative association.

Individual buildings have an impact on our environment and society but greater impact comes from green developments. With these large-scale construction project the green options for the building's construction are much the same. There are real opportunities to actually improve or restore the environment in which the development exists along with changing the lifestyles of the residents and workers.

A highly successful mixed-use development, Coffee Creek Center, is located just 50 miles southeast of Chicago in Chesterton, Indiana. It opened in late 1999 and is expected to have 2,000 residential units and 3 million square feet of commercial space on its 640 acres when completed. Despite the fact that all but 7 acres of land is suitable for building, the developer chose to set aside 1/3 of the acreage, over 200 acres, for parks, restored prairies, the restored creek, water falls and walking paths.

The development has won numerous awards for its many sustainable and ecological sensitive components. The innovative storm water management system, called the Level Spreader System, sends the rain water through various natural filtration systems before distributing it into two ponds. Follow this link: [coffeecreekcenter.com](http://coffeecreekcenter.com), then hit "Design Concepts" and "Ecology" to see an animated video of how the Level Spreader System works.

Deweese Island is another housing development. It stands at the tip of the Cape Romain Wildlife Refuge just a few miles north of Charleston, South Carolina. Only 50 houses will be built on the 200 acre development. There are restrictions on the ways the homes can be built as well as how their inhabitants can live.

As an example, even if the homeowner purchases an acre and a half, only 7,500 sf of the site can be disturbed. All plants must be indigenous, all roads porous, all vehicles electric. Low flow plumbing fixtures and the inability to install irrigation systems greatly reduces the demand the community has on natural resources. [smartcommunities.ncat.org/success/dewislan.shtml](http://smartcommunities.ncat.org/success/dewislan.shtml).

If you've ever heard of Maho Bay or Harmony Resorts then you know about the man that introduced Eco Tourism. The owner of these four green resorts, Stanley Selengut, was the father of the movement with his original Maho Bay Camps in 1976. From there grew three other resorts all located adjacent to the U.S. Virgin Island National Park.

The resort is built in a way that protects the fragile eco-system. All buildings are built on stilts to prevent soil erosion and protect the beach and fragile coral reefs. All buildings are connected with raised sidewalks.

The message of environmental stewardship is given at check in time. It must have an affect because the average guest only uses 25 gallons a day where a traditional resort guest uses 300 gallons of water a day.

Because fresh water is such a valuable commodity, biodegradable soaps are used by guests and in the laundry facility so that

waste water can be reused as gray water or for irrigation. The resort also collects over 345,000 gallons a year of rainwater for reuse.

Three of the four resorts are powered 100% by the sun. For more information see: [maho.org/EnvironmentalInformation.cfm](http://maho.org/EnvironmentalInformation.cfm).

Lastly, although it's not an actual development, New York Governor Pataki recently announced that the Freedom Tower, World Trade Center Office Towers 2, 3, and 4, as well as the World Trade Center Memorial and Memorial Museum will be designed to achieve the USGBC's LEED® Gold certification. They will follow behind the world's first green residential high-rise, the Solaire in neighboring Battery Park City, NY, which received a LEED Gold certification. In addition, World Trade Center 7 was LEED Gold certified in March 2006.

Spec office developers have been the last to jump on the green bandwagon. From what I have read and heard the developers that are trying green are realizing comfortable profits for their non-traditional efforts.

For more information and ideas about green developments see the information for the USGBC's pilot program called LEED ND for neighborhood development. They also provide guidelines for Multiple Buildings and On Campus Buildings. A free copy of both can be obtained here:

[usgbc.org/DisplayPage.aspx?CategoryID= 9](http://usgbc.org/DisplayPage.aspx?CategoryID=9). You can also check out the Master Building Association of King and Snohomish County, Washington's Self Certification Checklist from Green Communities: [builtgreen.net/documents/Communities%20Checklist.pdf](http://builtgreen.net/documents/Communities%20Checklist.pdf).