

Leed Conference Report

The following is a summary of construction of Green Schools based on information I received at a conference on this subject.

The conference attended was entitled, "High Performance Schools Initiative." The conference featured a variety of speakers who had experience designing and building "green schools" as well as a discussion of the levels of certification and how they are achieved.

From the Leed information, "Leadership in Energy and Environmental Design (Leed)...Buildings fundamentally impact people's lives and the health of the planet. In the United States, buildings use one-third of our total energy, two-thirds of our electricity, one-eighth of our water, and transform land that provides valuable ecological resources. Since the LEED Green Building Rating System for new Construction was first published in 1999, it has been helping professionals across the country to improve the quality of our buildings and their impact on the environment."

"As the green building sector grows exponentially, more and more building professionals, owners, and operators are seeing the benefits of green building and LEED certification. Green design not only makes a positive impact on public health and the environment, it also reduces operating costs, enhances building and organizational marketability, potentially increases occupant productivity, and helps create a sustainable community. LEED fits into this market by providing rating systems that are voluntary, consensus-based, market-driven, based on accepted energy and environmental principals and they strike a balance between established practices and emerging concepts."

One of the striking points of the conference was to emphasize the design of the school. It should contain a variety of features including how the building is laid out on the site to take advantage of natural light, how rainwater can be re-used if collected and treated, use of green HVAC systems and fixtures throughout the building.

Of interest to me, which we have designed into the CBJ building, which is not eligible for LEED certification, is the important design of having public spaces put together so that there is a separate entrance, so that there are bathrooms for that area, and separate entrances so the rest of the building does not have to be open and heated or supplied with A/C while these are in use. These include gyms, cafeterias, media centers etc.

Another easy item to implement from the LEED certification process is to have parking spaces allocated for car pool drivers and riders. These preferential parking spaces encourage people to use fewer vehicles to go to and from work.

Every area of the building that may have chemicals, high volume copying, custodial supplies etc. should have exhausts.

One to two per cent of the cost of the project up front can help to get green certification. The savings may be substantial in energy costs.

There are different kinds of green schools. Some of them include:

1. Low tech design:
 - A. Use of exterior features of the site. (Hills, elevation, etc.)
 - B. Natural ventilation and sun. (Position of Building)
 - C. Skylights (Walmart experiment...they put skylights over half of their registers and found that over 60% of people checking out were in those lines as the light made them feel better.)
 - D. No fumes
 - E. Acoustic items.

2. Medium tech design:
 - A. Energy Modeling
 - B. Insulation
 - C. FSC certified wood
 - D. Radiant Heating
 - E. High Efficiency fixtures and toilets
 - F. Occupancy sensors for lights
 - G. Building automation systems/metering
3. High tech design
 - A. Water Acclimation.
 - B. Solar Photovoltaic
 - C. Solar hot water
 - D. Geo thermal wells
 - E. Fuel cells (made in Ct)

An important point made at the conference is that all the players have to get together when a construction project is undertaken. That means the schools, the city, the operations and maintenance people, the utility companies, etc.

There are many materials that can be obtained on line at the CT Green Building site. (CBG) and information on LEED certification and ratings.

Finally, our students participated in a question and answer round-table after the conference and talked about their efforts to recycle and what it meant to try to make the planet environmentally friendly. A green school effort should be considered when a building project is considered.

