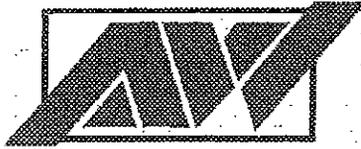




**ALLIED
WASTE**

LEED Basics

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Allied Waste is excited about Green building.

Up until now we have not promoted ourselves as 'green' to gain an edge in this niche market; we have just been there, working along side architects and contractors endeavoring to make the collaborative process better and easier for everyone.

What is it we bring to the construction industry that wasn't there before?

Essentially we bring our expertise in a field that is becoming more and more valuable as resources become more precious. We know what waste-streams to expect from every building type and size by industry, and we know where to dispose of it to the greatest benefit, and it is not always the landfill as many think. Allied Waste is the Nations largest hauler of recyclables and is committed to promoting sustainability. Besides being a good environmental thing to do and socially responsible, it is a wise economic decision too. This is the Triple Bottom Line and it is becoming the new business model for today's cutting edge companies.

There is one predominate standard in the green building movement, the USGBC's LEED™ rating system. Though not magic in itself, it has become a more subjective, third party standard to judge 'how' green a building really is, compared to a similar 'conventionally constructed' building.

Initially, most of the attention was placed on how to manage (recycle) as much construction waste as possible. What is realized now is that Waste-Stream Management needs to begin in the Pre-Design stage of a project because waste is a critical function during the entire life cycle of a building, and needs to be specifically planned for from the start, and then closely managed long after the building is completed and turned over to the permanent occupants. LEED™ requires that the Waste-Streams be measured and verified throughout the 5-year term of certification.

The affects of LEED™ will continue to grow even faster now that a new 'high performance' standard for Existing Buildings (LEED-EB) has been recently introduced.

As critical as it is for us all to take action to protect our limited, rapidly vanishing natural environment, it is economics that turns heads and most greatly influences the major decisions in our world. That is the reason green building will continue to grow and flourish, it makes the building owner's money, lots of money. Once developers get past the misconception of increased 'first costs', the benefits are overwhelming. It is quite simple, but knowledge grows with time and education, and exponentially at that.

I am excited about being an active partner in this new emerging movement, and that Allied Waste is now seen as an innovator of environmental solutions.

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LEED™ Basics

(Leadership in Energy and Environmental Design)

“The LEED™ Green Building Rating System is a voluntary, consensus-based, market-driven building rating system based on existing proven technology. It evaluates environmental performance from a whole building perspective over a building’s life cycle, providing a definitive standard for what constitutes a ‘green building’”.

USGBC Principles:

1. Minimize resource consumption (Reduce)
2. Maximize resource reuse (Reuse)
3. Recycle & use renewable or recyclable resources (Recycle)
4. Protect the natural environment
5. Create a healthy, non-toxic human environment
6. Apply Life-Cycle Cost Analysis
7. Pursue quality in creating the built environment

Owner Benefits: (What drives this market)

1. Reduce or neutralize ‘First Costs’
2. Optimize life cycle economics performance
3. Productivity enhancements (studies show up to 16% increases, higher morale, decreased absenteeism)
4. Indoor Environmental Quality enhancements
5. Sick Building Syndrome liability reductions (Ins. cos. considering rate breaks)
6. Facility operations Savings (some realize + 50% reduction in costs)
7. Maintenance Savings
8. Reduce impact of design and construction
9. Reduce impact of business operations
10. Leadership in corporate caring (Image)
11. Environmental consciousness (Image)
12. Employer of choice (Image)
13. Good Corporate Citizen (Image)
14. Market differentiation (Huge advantage)
15. Dow Jones sustainability index

LEED-NC Rating System

The LEED rating system utilizes a list of 34 potential performances based “credits” worth up to 69 points, as well as 7 prerequisite criteria, divided into 6 categories.

1. Sustainable Sites
2. Water Efficiency
3. Energy & Atmosphere
4. Materials & Resources
5. Indoor Environmental Quality
6. Innovation & design process
- 7.

There are four levels of LEED certifications that can be achieved through a point rating system.

1. Certified (26-32)
2. Silver (33-38)
3. Gold (39-51)
4. Platinum (52-69)

Materials & Resources ~~The first point is with a 50% recycling rate of construction debris, second point awarded with an additional 25% recycling rate of construction debris diverted from landfills.~~

Prerequisites

Storage & Collection of Recyclables

This is the post-building recycling plan that must be put in place.

Consider what the post-occupancy recycling expectations are and provide them with valuable information regarding the variety of options, specifications of equipment and different container sizes, physical logistics of the pick-up area planned what is actually required to service the building.

Every building is different and requires a specific plan.

Allied Waste has the infrastructure and assets to achieve both the construction and ongoing permanent work, and is positioned as the “ Full Service Waste Company”

Making a LEED™ Project Successful

LEED is just a way of building to a higher standard... with a REPORT CARD

LEED Goals are to be Socially Responsible, Environmentally Aware & MAKE MONEY

“Tree Hugging Capitalists”

BENEFITS OF GREEN BUILDING

Environmental

Reducing impact on natural resources through careful consumption and minimizing disposal

Economic

Improve bottom line in construction, operation & productivity

Health & Safety

Enhance occupant's comfort and health

Community

Minimize strain on local infrastructure

Every Subcontractor is involved.

Every Worker is involved.

Waste Recycling Specifically:

Goal: Recycle 75% of all Waste Generated in the Construction Process
Valuable CREDITS are at stake

Critical Issue: KEEPING RECYCLE LOAD CLEAR OF 'OTHER STUFF' (CONTAMINANTS)

WOOD ONLY – All Wood (Nails OK) NO PAPER GARBAGE METAL OR CONCRETE

DRYWALL/WOOD ONLY – All Drywall (Treated and Denzglass) w/Wood Commingled

CONCRETE ONLY – Nothing that can't be crushed up for roadbed
NO CUTTING WHEELS, TRASH

CARDBOARD ONLY – Just cardboard

METAL ONLY – Mixed metals, NO wire mesh (concrete mesh is TRASH)

TRASH ONLY - Everything else

BAD LOADS COST MORE MONEY AND JEPORDISES THE NEEDED POINTS FOR CERTIFICATION

Green Building: Fad or Future

In America, buildings account for 65% of electricity consumption, 36% of total energy use and 30% of greenhouse-gas emissions.

Making buildings more energy-efficient could have a significant impact on health, our environment and the economy.

New 'green' paradigm

There are various names for this new 'green' paradigm, Green Building, Green Architecture, High Performance Building, LEED™ Building. But whatever it is called, the key goal is changing the way buildings are designed, built and run.

Proponents of 'green' argue that the approach has many benefits, for example, the combination of green design techniques and innovative technology can not only reduce energy consumption and environmental impact, but also reduce running costs, create a more pleasant working environment, improve employees' health and productivity, reduce legal liability, and boost property values and rental returns.

Today's enthusiasm for green architecture has its origins in the energy crisis of the 1970s, when architects began to question the wisdom of building enclosed glass-and-steel boxes that required massive heating and cooling systems. Early proponents of more energy-efficient architecture included William McDonough, Bruce Fowle and Robert Fox in America.

Life-Cycle vs. First Costs

These forward-thinking architects began to explore designs that focused on the long-term environmental impact of maintaining and operating a building, looking beyond the so-called "first costs" of getting it built in the first place.

This approach has since been formalized in a number of assessment and rating systems, such as the BREEAM standard introduced in Britain in 1990, and the LEED™ (Leadership in Energy and Environmental Design) standards developed by the United States Green Building Council (USGBC).

The LEED™ standards are intended to produce "the world's greenest and best buildings" by giving developers a straightforward checklist of criteria by which the greenness of a building can be judged. A gold-rated building is estimated to have reduced its environmental impact by 50% compared with an equivalent conventional building, and a platinum-rated building by over 70%.

Problem revealed

Rating buildings in this way reveals how inefficient traditional buildings and building processes are. "We can sometimes waste up to 30 cents on the dollar, it's not just the consumption of energy, it's the use of materials, the waste of water, the incredibly inefficient strategies we use for choosing the subsystems of our buildings. It's a scary thing", says Phillip Bernstein, an architect and professor at Yale University.

This is largely because the construction industry is so fragmented. Designers, architects, engineers, developers and builders each make decisions that serve their own interests, but create huge inefficiencies overall.

Mainstream Green

But things are now changing, as green architecture moves into the mainstream.

The USGBC says nearly 1,700 buildings in 50 states are now seeking LEED™ certification and 137 have been constructed and certified so far. And America's General Services Administration, which oversees all non-military government construction, recently decreed that all new projects and renovations must meet the minimum LEED™ standards.

Not just an American initiative

In Britain, meanwhile, 70 office buildings constructed during 2003, representing 25% of the total by floor area, met the BREEAM standard. Similar standards have been adopted in New Zealand, Australia and Canada. In China, the Beijing Organizing Committee of the Olympic Games aims to host the first zero-net-emissions games, which will include constructing all buildings and sports venues using green-architecture principles. "Going green saves money by reducing energy and maintenance costs, and may boost productivity."

Why it pays to be green

Going green saves money by reducing long-term energy costs: a survey of 99 green buildings in America found that on average, they use 30% less energy than comparable conventional buildings. So any additional building costs can be recovered quickly: according to the USGBC, the 2% increase in construction costs required to achieve a LEED™ gold rating typically pays for itself in lower running costs within two years. The traditional approach of trying to minimize construction costs, by contrast, can lead to higher energy bills and wasted materials. Energy-saving techniques need not all be as exotic as installing coated glass, computer-controlled blinds or photovoltaic cells.

Studies prove

Green buildings can also have less obvious economic benefits. The use of natural daylight in office buildings, for example, as well as reducing energy costs, also seems to make workers more productive. Studies conducted by Rachel and Stephen Kaplan, environmental psychologists at the University of Michigan, found that employees with views of a natural landscape report greater job satisfaction, less stress and fewer illnesses. Lockheed Martin, an aerospace firm, found that absenteeism fell by 15% after it moved 2,500 employees into a new green building in Sunnyvale, California. The increase in productivity paid for the building's higher construction costs within a year. Similarly, the use of daylight in shopping complexes appears to increase sales. The Heschong Mahone Group, a California-based consultancy that specializes in energy-efficient building technologies, found that sales were as much as 40% higher in stores lit with skylights. It also found that students in naturally lit classrooms performed up to 20% better.

Green is still the exception

Despite the benefits and its growing popularity, green architecture is still the exception, not the rule. A main problem is co-ordination; Green buildings require much more planning by architects, engineers, builders and developers than traditional buildings. "The building industry is very disaggregated".

Public education is another, continued misconception of the cost of building green. Both of these barriers are being overcome at a steadily growing rate, and momentum is increasing rapidly.

Progress

Three-dimensional computer models are being used with sophisticated analytical tools. All of this is old hat for the airline and automobile industries, where computer models have long been used to trim costs and streamline design before construction begins. Now architects are applying similar computer model technology. It is then possible to predict how much energy and water a building will consume, how much material will be needed, and other parameters that determine its LEED™ certification.

Fad or Future

This is more than a mere fad; LEED™ Building will continue to help reshape the construction industry over the next five years and beyond, with ever more innovative, energy-efficient and environmentally friendly buildings. There is too much at stake, not only health and environmental issues, but there is also a lot of money to be saved and made. This new future is very market driven, therefore will continue until it becomes the norm rather than the exception.

Compiled by B Lynds
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*Much of the above material gleaned from The Economist 12/2/2004 The Rise of Green Building