Entrant's Name : RICHARD NOPRADA MARCELO

Residential Address : Purok 1, 0043 Brgy. Makiling, Calamba City, Laguna, 4027 Philippines

E-mail Address : marcelorichard.sepi@gmail.com / marcelo.richardn@outlook.com

Association : Philippine Institute of Certified Quantity Surveyors (PICQS), Inc.-Philippine Chapter

ARE GREEN BUILDINGS TRULY GREEN AND FOR HOW LONG?

Building is considered green when a structure is effectively conserving energy and it utilize the resources efficiently. The ideal green building would be a building structure that would allow you to preserve most of the natural environment around the world, while still being able to produce a building that is going to serve a purpose. The construction and operation will promote a healthy environment for all involved, and it will not disrupt the land, water, resources and energy in and around the building. It is important to know the essential utilities to save the operating cost of the building is through our natural resources such as sunlight, air and water. Green building is mostly focus in energy efficiency, water conservation, proper waste disposal, sustainability, and the use of environmentally-friendly construction materials. Green building is a long term promotion of conservation of energy and natural resources in the whole world.

The most important element which any building needs to fulfill in order to reduce impact to public health and to the environment are as follows:

Sustainable Design

A building created through sustainable development, without damaging the existing eco-system. Helping environment by making more sustainable is to have planted shade trees or placing plants to the

surroundings. It is suprisingly can have a big impact on conservation of natural resources.

Environment & Energy

Reducing carbon footprint on surrounding through eco-friendly and sustainable construction materials, apart from frequently using renewable energy and resources. Just like green homes that reduce their carbon footprint effectively reduce their carbon dioxide emissions. And therein lies one of the most beneficial aspects of green home improvements; less carbon dioxide is released into the atmosphere. Simply by using green energy like geothermal, wind and solar, homes can cut back or eliminate the amount of carbon dioxide emissions polluting our ozone layer.

Water Use

Preservation and efficient use of existing water cycle. Retaining storm water and making it potable through filtration on location, recycling used water and preserving the surrounding natural hydrological eco-system.

Indoor Air Quality

The building should provide optimal comfort indoors, through efficient maintenance of air quality, temperature, and ventilation, with access to sufficient daylight for conserving electrical energy. Building rely on a properly design HVAC system to provide adequate ventilation and air filtration as well as isolate operations just like kitchens, dry cleaners, etc from other occupancies During the design and construction

process chossing construction amterials and interior products with zero or low emissions will improve indoor air quality.

Construction Materials Used

The building needs to have minimal, or no, non-renewable construction material, have efficient, eco-friendly design and engineering, with maximum use of recyclable, eco-friendly construction materials. Building materials typically considered to be green include rapidly renewable plant materials like bamboo because bamboo grows quickly and straw, lumber form forest certified to be sustainable managed, ecology block, dimension stone, recycled stone, recycled metal and other products that are non-toxic, reusable, renewable, and/or recycable.

COST OF GREEN BUILDING

One of major perceptions about going green is that there is substantial cost involved – that you need to be relatively well-off to go green. This misconception that going green is very expensive could be one of the major impediments for the change towards a greener and healthier society.

This whole idea about going green being expensive is not entirely unfounded. For example, some eco-friendly products are indeed a little bit more expensive than the regular ones. Of course, there are also other

costs involved in going green, such as in making lifestyle changes. Some people would consider these changes to be inconvenient.

BENEFITS OF GREEN BUILDING

With new technologies constantly being developed to complement current practices in creating greener structures, the benefits of green building can range from environmental to economic to social. By adopting greener practices, we can take maximum advantage of environmental and economic performance. Green construction methods when integrated while design and construction provide most significant benefits.

Benefits of green building include:

Environmental Benefits:

- Reduce wastage of water
- Conserve natural resources

- Improve air and water quality

- Protect biodiversity and ecosystems

Economic Benefits:

- Reduce operating costs

Reduced demand on electric, gas and water utilities means that these infrastructures can do more with less. This can result in lower municipal utility costs over the long run as utilities need not expand and can avoid passing those expansion costs onto utility.

- Improve occupant productivity

Indicate that building occupants who are healthy and comfortable are more productive.

- Create market for green product and services

Both residential and commercial buildings retain a high resale value if they include sustainable design components. The value to prospective buyers comes from knowing their utility and maintenance costs

will be lower in green buildings that outperform non-green buildings. Occupancy levels are consistently higher, and vacancy rates lower, in sustainable office buildings.

Social Benefits:

- Improve quality of life

When all of the benefits to green architecture and sustainable design are added up, the enhanced lifestyles shared by all of society makes sense, both economically and environmentally. As we move into an era of smarter technology and more expensive natural resources, we can't afford not to build green.

- Minimize strain on local infrastructure

- Improve occupant health and comfort in Green Buildings

Green buildings, however, avoid many of the problems with healthy ventilation systems and use of non-toxic building materials.

THE GOALS OF GREEN BUILDING

Now, we should consider the goals of green building. Of course, one of the main goals is to make the earth more sustainable, but it really does go deeper than that. When you decide to go green, your goal will be to actually help to sustain the environment without disrupting the natural habitats around it. When you start a building project, and you disrupt the natural habitats around it, you can actually make an impact in the wildlife and environment that will be much like a butterfly effect. Even the smallest changes that you can make will help to promote a better planet earth, and a better place for us all to live- not just us humans, but also the plants and wildlife that take up their residence here on earth as well.

As you can see, green building is something that everyone should really jump on to. If you don't plan to rebuild your home, then you may just want to make a few green changes within your home to ensure that

you are able to get the goals that you want out of it. You can cut down on your energy usage, save money,

and make a big impact on the environment. You will find that it isn't as hard as people make it out to be, and

you will feel better about yourself when you go green too!

References:

http://www.all-recycling-facts.com/cost-of-going-green.html

https://www.conserve-energy-future.com/green-building.php/

https://www.conserve-energy-future.com/green-building.php/