

Building refurbishment and maintenance

[Education](#), [Sustainability](#)



A sustainable building is a building which is in its construction performs in an environmentally sound way, essentially in terms of energy and water efficiency and waste/pollution management. These key factors are the core of buildings sustainability after its maintenance. They also result in minimal environmental pollution hence no environmental risk. Optimizing energy use:- With concerns for energy security increasing, it's vital to consider the impact of greenhouse gases on world climate rising, therefore essential to find of reducing load, increase efficiency and utilize renewable energy resources.

Considering the refurbished building both the restaurant and the bar. Backup power energy should be put into consideration, they include solar source, battery backup for the pool/snooker floor and both restaurant and bar. Energy usage should be shared according to the need of each floors need. Cabling of both the data and power cables should be done by professionals to avoid any future power problem including disaster in then building. Protect and conserve water:- In many parts of the country, fresh water is an increasingly scarce resource.

A sustainable building should reduce control, or treat site-runoff, use water efficiently, and reuse or recycle water for on-site use when feasible. In the building the distribution of the water resource should also be based in each floors needs. Determining water consumption during the developing of a strategy for retaining water for re-use (commonly the water is re-used is toilet flushing, cooling towers or irrigation) (Taylor, 2006). The main bar and restaurant are a priority compared to the upper snooker and pool floor.

It's also vital to create a reservoir for the buildings water on top of the snooker/pool floor. This will enhance sustainability of then building in terms

of water resource. Use of environmentally preferable products:- This sustainable building should be constructed of materials that will minimize life-cycle environmental impacts or hazard such as global warming, resource depletion, and human toxicity. The Executive order 13423 defines these environmentally preferable materials.

They are products or services that have a minimal or reduced effect on human health and the environment when compared with competing products or services serving similar purpose. Thus, they contribute to improved worker safety and also health, reduced liabilities, reduced disposal costs, hence enhancing the buildings sustainability. Enhance indoor environmental quality:- The indoor environmental quality of the building has a significant impact on occupant health, comfort, and productivity.

Therefore this intended sustainable building should maximize day lighting with appropriate ventilation and moisture control, no use of materials with high-Volatile Organic Compounds emissions. Additional consideration must be given to ventilation and filtration to mitigate chemical, biological, and radiological attack in the general building. The building should also consider remedies to smokers in the bar and snooker /pool apartment and be able to ensure that no-smokers in and out of the building are not affected. This can be easily enhanced by creating a special room to cater for such customers.

This room should be sealed and properly ventilated to avoid any air toxic pollution to the environment. The building should also meet requirements of environmental legislation, protect and enhance natural environment and protect human health and well being. Optimize operational and maintenance practices:- It's also vital to incorporate operating and maintenance

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considerations into the refurbishing of this facility this will greatly contribute to improved working environments, higher productivity and reduced energy and resource costs.

Designers should be encouraged to specify materials and systems that simplify or reduce maintenance requirements, such should require less water, energy, and toxic chemicals and cleaners to maintain; and are cost-effective and reduce life-cycle costs hence enhancing sustainability if the building in general. In general ensuring the specification refurbished and maintained building takes account of economic, social and environmental issues and should set targets for key performance indicators, such as energy, water use and waste production minimized. .

Reflective question My personal reflection of then research on adopting and maintaining a building such as this story building is varied in my view and understanding. They consecutively include:- Important issues:-It's vital and important to consider energy, water, and environmental impacts of the building during refurbishment and maintenance. Energy enhances and ensures the buildings sustainability by providing necessary energy requirement for both the restaurant and the bar. A good measure for backup of energy also ensures the buildings sustainability.

Water is a major consideration in any premise that is to be sustained for a long time. Ensuring that correct measures and precautions are taken to conserve this precious commodity will lead to the buildings sustainability. Environmental precautions from all harmful products are also a necessity to consider not only to sustain the building but also to ensure the safety of the people in the premise. Meaningful issues: - It was meaningful to establish a <https://assignbuster.com/building-refurbishment-and-maintenance/>

collaborate design model that enhances the buildings sustainability. I found out the benefits of documenting a maintenance policy because

comprehensive maintenance policy will: facilitate compliance with relevant government policies and statutory requirements hence ensuring the buildings sustainability. Facilitate consistency in department of bar, restaurant and snooker/pool rooms, maintenance also promote effective maintenance and management practices among departmental asset and facility managers support the conduct of maintenance activities by service providers. The determination of condition standard ratings for building assets as per MMF policy requirement 2 is fundamental to the maintenance management process.

The standards provide a clear statement of the level to which assets in the building must be maintained to meet service delivery needs. Condition standards: are the departmental maintenance strategies and plans Building Maintenance Policy, Strategy Development Maintenance Management Framework Guideline 5 element groups (like superstructure, finishes, services) elements (like roof, external walls, floor finishes, lighting, air conditioning) sub-elements (like brick walls, distribution boards, ductwork, controls).

are benchmarks against which building condition assessment results is evaluated (thus identifying the extent of any gap between desired and actual building condition) facilitate the analysis of actual condition over time (such as detection, monitoring and forward-projection of trends in building condition) hence, during the condition assessment process, maintenance service providers focus only on work required to bring up an asset to the <https://assignbuster.com/building-refurbishment-and-maintenance/>

specified condition (rather than unnecessarily identify work that may exceed departmental requirements).

Determination of condition standards is more effective when undertaken by departmental teams involving: facility managers; asset user representative's business managers; portfolio asset managers; and maintenance service providers. Good issues:- I also noted that assessing all possible uses of existing buildings, recycling buildings and spaces for reuse in the shortest practicable time, saves as much as possible of the existing infrastructure. Keeping records of what is there at the moment is important, prior to any demolition process.

Decisive issues: - I also noted that the condition of a building refurbishing asset such as a building's physical state of repair influences its physical and also functional performance. Its vital for a building to assign standard such: Condition standard rating, departmental maintenance, as before assigning a condition standard rating to a building asset, departments should carefully consider what they require of that asset (bar and Restaurant and the snooker/pool rooms). The ratings should begin with a review of department's service delivery plan.

This review determines: The criticality to service delivery, and the required function for each of the three building portfolio. (1) Assigning condition standard ratings (2) preparing a departmental maintenance strategy (3) developing a Strategic Maintenance Plan. Uncomfortable issues: - It was also worth and uncomfortable to note that finishes of building elements such as walls and coatings of certain equipment inside buildings can release toxic contaminants into air, causing air pollution especially indoors. Another <https://assignbuster.com/building-refurbishment-and-maintenance/>

problem of building use is the generation of solid waste and wastewater in this time of fewer water supplies.

Conclusions To conclude the refurbishing and maintenance of the three story building with a bar, restaurant and snooker/pool. It has been vehemently established that in refurbishing a building like this, to enhance its sustainability, one should consider the three main factors that include energy, water and environmental concerns of both the inhabitants and the neighbours, but also not neglecting other factors that lead to its sustainability that have been discussed above. Re-evaluation of the energy and water performance of each building that has been completed has to be implemented (Adelaide City Council, 2007).

Therefore considering all this one will be able to refurbish, maintain and sustain a building. Sources Managing Your Environmental Responsibilities. (2005). A Planning Guide for Construction Development by U. S. Environmental Protection Agency Taylor, B. (2006. June), The ten key principles of green fire, White Paper, Melbourne: Adelaide City Council (2007), Environment projects, Accessed from http://www.adelaidecitycouncil.com/scripts/nc.dll?ADCC:STANDARD::pc=PC_175 The State University of New York (2004). UB High Performance Building Guidelines by the University at Buffalo, the State University of New York