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APPLICATION OF SUSTAINABLE DESIGN PRINCIPLES IN ARCHITECTURE

In the modern world, environmental issues and energy efficiency are becoming increasingly pressing concerns. In this context, architects and designers are carefully considering the application of sustainable design principles to create buildings capable of minimizing negative impacts on the environment and ensuring energy savings. Sustainable design optimizes building performance and minimizes negative impacts on building occupants and the environment. We incorporate sustainable design and energy efficiency principles into our construction and modernization projects, balancing cost, environmental, societal, and human benefits that help meet our tenant agencies' mission objectives and functional needs [1].

One of the key principles of sustainable design in architecture is energy efficiency. Buildings designed with this principle in mind aim to minimize energy consumption by employing innovative heating, ventilation, and air conditioning systems. Additionally, the use of renewable energy sources such as solar panels or wind turbines to supplement a building's energy needs is an important aspect [2].

Another crucial aspect of sustainable design is the use of environmentally friendly materials. When constructing buildings, there is a growing preference for materials that do not harm the environment and do not contain harmful chemicals. For example, wood, stone, glass, and recycled materials can be excellent alternatives to traditional building materials such as concrete and metal.

Moreover, sustainable design includes aspects such as optimizing natural light and ventilation, creating greenery on building rooftops to improve the microclimate and reduce the impact of urban environments, and maximizing space while considering ecosystem needs. Green plantations determine and improve the climatic, sanitary and hygienic living conditions in it. In urban planning, they embody the architectural, artistic and sanitary-hygienic component [3]. The negative impact on humans of a number of adverse factors of urban life is significantly reduced by the skillful placement in the city of green spaces, an increase in the area under them, and a well-thought-out system of their rational location.

In conclusion, the application of sustainable design principles in architecture is not only a fashionable trend but also a necessary step towards preserving the environment and ensuring energy efficiency. Implementing these principles requires collaborative efforts from architects, designers, engineers, and clients to create a more sustainable and healthy society.

REFERENCES

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