

Costa rica

Business



Costa Rica Green Design A building constructed using green design is a building made in a way to be more sustainable and environmentally friendly. This usually means collaborating with architects and interior designers to find eco-friendly alternatives and ideas. As our environment continues to face difficulties with pollution, climate change, and sea levels rising it is more important now than ever to live sustainably in any way we can. A house or building that incorporates green design leaves a much smaller carbon footprint and wastes less of the earth's threatened resources. A house that is made using green design is also known for saving more money as time goes on because they usually use less electricity and water which spike up ones monthly bills.

This type of design can have a huge impact on the area, especially if it is adopted by an entire community. It could dramatically decrease the wasted energy and pollution in an area. As more people focus on sustainability and green design the positive impacts on the world and communities will continue to grow exponentially. For our house designed using green design we decided to build the home in Costa Rica in close proximity the water. Costa Rica in 2013 was ranked number 2 in the countries with the most environmental sustainability. In Costa Rica we found that we would have access to many renewable resources and forms of collecting energy because of policies already being used.

These systems that are already in place in the country would help us to develop our house with the support of the community and without having to create sustainable methods of collecting energy completely from scratch. Costa Rica has a temperate tropical climate with a dry and wet season. It's <https://assignbuster.com/costa-rica/>

average daily temperature ranges between 71 to 81 degrees. We will be locating our house near the water and beaches which tend to be slightly more dry and have more sunlight daily. Costa Rica has a topography that includes central highlands, volcanoes, coastal plains. Our house will be in the coastal plain region of the nation which encompasses approximately 30% of Costa Rica's territory.

This region will offer us easy and quick access to the water, a relatively consistent costal breeze, and more unobstructed sunlight. After doing some research and looking at all of the benefits of settling in this area we decided this was the best place for our green design home. In order to make the energy inside our home as environmentally friendly as possible we decided to incorporate solar panels and a micro-hydro system to power our house. Because we are located in a region with a high amount of sunlight the solar panels will provide as our primary source of electricity. According to trials done by people already living in the area, we found that on average there are about four hours of 100 percent production on solar panels per day.

After seeing, this we decided that hydropower would be a very efficient way to provide energy to compensate for too little solar power on certain days. The hydro systems have been used in Costa Rica and although it is more difficult to install and maintain it has had great results. There are sometimes when hydropower has even been proven to be more efficient than solar power in Costa Rica because it tends to be more reliable. Using these two power sources in conjunction may allow us to completely eliminate the use of nonrenewable resources in the house, especially for electricity. The use of nonrenewable resources has many negative effects on the planet by

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increasing pollution, waste, and depleting and destroying areas in order to get fuel.

In order to preserve electricity the next component for the outside of our house will be double glazed windows which provide more insulation and windows on the roof to create natural light making the use of light bulbs less necessary during the day. Both of these will decrease the amount of energy used in our house from the day to day by decreasing the amount of electricity needed to bring light into the house and the amount of air conditioning one would need to use. The next exterior addition our house will have is a rainwater collection tank with a filtration system. This tank will collect water that can be used for yard work or gardening which helps to preserve the amount of clean water wasted. In the actual construction of our house we seek to make the building taller and compact to use up less space and make it more efficient. We also look to use recycled materials like wood doors to use less resources in the building of the house.

We also will use a water based paint for outside so that there are less toxic chemicals turning into run off from our paint into the environment over time. We will be investing in a “ green wall” on our house as well. A “ green wall” is when the wall of the building has plants and vines incorporated onto it as a part of the design. This helps to keep the house insulated and is good for the environment by encouraging the growth of greenery. The last step in the development of the exterior of our home will be making sure the architectural design follows internationally certified green codes. These green codes are like building codes that check if a building is made in a sustainable and environmentally friendly way.

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Upholding these green codes will give more specific policies to ensure almost everything about the exterior of the house is environmentally conscious and will make sure to encourage the upkeep of the renewable energy systems. In order to design a proper house that uses green design we cannot only use green methods outside. We must incorporate these good ideas and our knowledge on being eco-friendly to the insides of our house as well. The first step to this process inside the house would be to make sure the house is insulated properly. Poor insulation, although it seems like something simple and easy to resolve, can cause a lot of heat and energy to be wasted every day in a home. Making sure the house has long lasting and effective insulation can help to prevent this.

In order to assist with insulation one other idea would be to have wood framed windows. These windows keep in heat and are more natural and less potentially harmful to the environment. Another easy way to make the interior of the house more eco-friendly is by assuring that all appliances and the roof are leak proof. Some days hundreds of gallons of water are lost in a home because of a very minor and virtually undetectable leak. By making sure everything is leak free periodically and all the machinery is up to date one can save money and preserve clean water. Similar to the leak-free appliances are our next two ideas: low flow shower heads and sinks, and a solar water heater.

Both of these additions would help to conserve water, energy and electricity. The next idea we had was to replace all regular light bulbs with energy efficient lightbulbs in order to conserve as much power as we can and make sure that when the lights are being used they are being used as effectively

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as possible with minimal energy wasted. The appliances we use should also use less energy and the old appliances should be replaced. These new models have a tendency to be less taxing on the environment and use less power. This helps conserve energy and resources.

The next developments are voice activated lights and a programmable thermostat. Both of these will encourage the use of less power and more preservation as it becomes easier to remember to turn the light and the air off. The last addition to the house on the inside would have to be a microwave and fridge that uses minimal unnecessary energy and is created using less toxic and chemical heavy materials. This way not only will it conserve power when it is in use but when it is thrown away it will cause less harmful pollution on the area than a normal appliance. Overall these idea will initially cost a lot of money not only to install but also to maintain.

The price range for our project will most likely be between 170, 000 and 200, 000 dollars when one considers the expenses of new appliances, building and purchasing methods of creating renewable energy and plants for the walls. Although this price may seem high this is primarily because of the cost of installation and to lesser extent, maintenance. In reality, these additions to our house will end up quickly saving money. They all operate on less expensive and less destructive forms of energy which causes them to waste and spend less money over time. In addition to having long term economic benefits, this design also has huge benefits for the environment. The design will help use much less energy and nonrenewable resources.

It will have positive impacts on the area and will encourage sustainable habits throughout ones every day life. Any immediate expenses will have major pay offs and will not only end up making money but will also have enormous benefits on the environment. It is our hope that this design and other homes like it will inspire others to be more aware of the impact their lives have on the environment and will encourage them to change their habits. This house could be the first step to creating a community of sustainable homes and the first steps to diminishing the footprint of humans in an entire region. We are looking to do something that will not only save money over time but will also leave a legacy of healthy and sustainable living in the area.

We want to set an example by making a house that uses almost completely eco-friendly methods and is as efficient as possible. The first step to helping our planet is the improving of our homes and ways of life.