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Green design benefits environment, bottom line

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Americans' increasing social and ecological consciousness is bringing about change in building and design. Green design has been endorsed by elements of business and government that realize that health, productivity, marketing and economic benefits make environmentally sensitive design good business.

Canadian geneticist David Suzuki describes the notion of "sacred balance," which calls for a greater appreciation of four elements essential to our survival -- air, water, food and fire. Paul Hawken, in his book *Natural Capitalism*, describes an economy reaping the benefits of a harmonious integration with natural ecosystems, resulting in more profitable businesses, increased worker and consumer satisfaction, and better quality of life.

After centuries of trying to exert control over and isolate ourselves from our natural environment, we are beginning to understand our need for a deeper connection to it.

The question becomes when and how will our society improve the relationship between our natural and built environments?

Some professionals in Charlotte are asking this question and many industries and community organizations are forming an answer. The building industry, for one, is recognizing it can make a significant contribution. The construction and operation of buildings contribute up to 40% of harmful air emissions in the United States and account for 60% of our energy consumption. This may be surprising, but consider that most Americans spend 90% of their time inside.

Reducing toxins in materials and indoor air, conserving water, cutting site disturbance and improving energy conservation can have an enormous impact on human health. By minimizing environmental impact in the way buildings are designed, built and operated, we can improve quality of life and the bottom line.

There are buildings in our region that demonstrate a commitment to occupant health and the environment, earning certification from the U.S. Green Building Council. Such developments include Third Creek Elementary School in Statesville. Catawba College's Center for the Environment in Salisbury is seamlessly integrated into the natural

landscape, and employs photovoltaic panels and a geo-exchange system to reduce the building's energy consumption. The center also stores rainwater for use in irrigation.

In uptown, the Children's Learning Center is being designed to earn green certification. Central Piedmont Community College and the YMCA have embraced some aspects of a green approach, specifically in reducing energy and operating costs and improving indoor air quality. The information technology building under construction at CPCC's central campus is being designed to achieve a 28% energy reduction, which will mean an annual savings of \$36,000.

You can see how the building industry and architectural profession are working hard to create better spaces, neighborhoods and aesthetically pleasing buildings with an environmental sensitivity. Next time you encounter one of these structures, take a good look at how these buildings relate their surroundings. Green buildings don't look like modern cheese graters or alien space ships, but rather seem to be more human and friendly in their demeanor than many of the traditional buildings that surround them.

That's what builders and architects are referring to when they mention green, sustainable or high-performance buildings: A finely tuned building designed to eventually become an integral part of the natural ecosystem as a contributing living organism.

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