LEED

What impact can one building have on the environment?

More than you might think. According to the U.S. Department of Energy, buildings in the United States consume more than 30% of the country's total energy and more than 60% of our electricity annually. Five billion gallons of potable water are used each day to flush toilets. A typical North American commercial construction project generates up to 2.5 pounds of solid waste per square foot of floor space. Furthermore, buildings are a major source of the pollutants that cause urban air quality problems and contribute to climate change, accounting for 35% of carbon dioxide emissions, 49% of sulfur dioxide emissions, 25% of nitrous oxide emissions, and 10% of particulate emissions.

In light of these statistics, building with an eye toward environmental responsibility seems obvious.

Green building practices can substantially reduce the negative environmental impacts associated with buildings and reverse the trend of unsustainable construction activities. But that is only part of the story. Green design also reduces energy use and operating costs, enhances marketability, improves occupant productivity, and helps create sustainable communities.

So, what impact can one building have on the environment? East Hall, on the lower campus of WPI, is a state-of-the-art "green" facility that was conceived and realized as a truly sustainable project. This residential building provides academic, social and residential space in a five-story, 103,000 sf building. EAST HALL is WPI's second structure built to the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) standards, a set of stringent sustainability specifications that has set a national standard for development of high-performance, sustainable, and energy-efficient buildings. LEED guidelines rate a project in the following categories: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation & Design. The EAST HALL project will apply for a LEED Gold Certification rating.

In many cases, the EAST HALL project team not only met the strict criteria for achieving LEED requirements but also exceeded them, through innovative approaches to incorporating green design methodologies throughout the building. As you will see in this display, the design elements and green technologies used in the construction of EAST HALL demonstrate WPI's commitment to sustainability and the environment. They also show just how much one building can make a difference on the environment.