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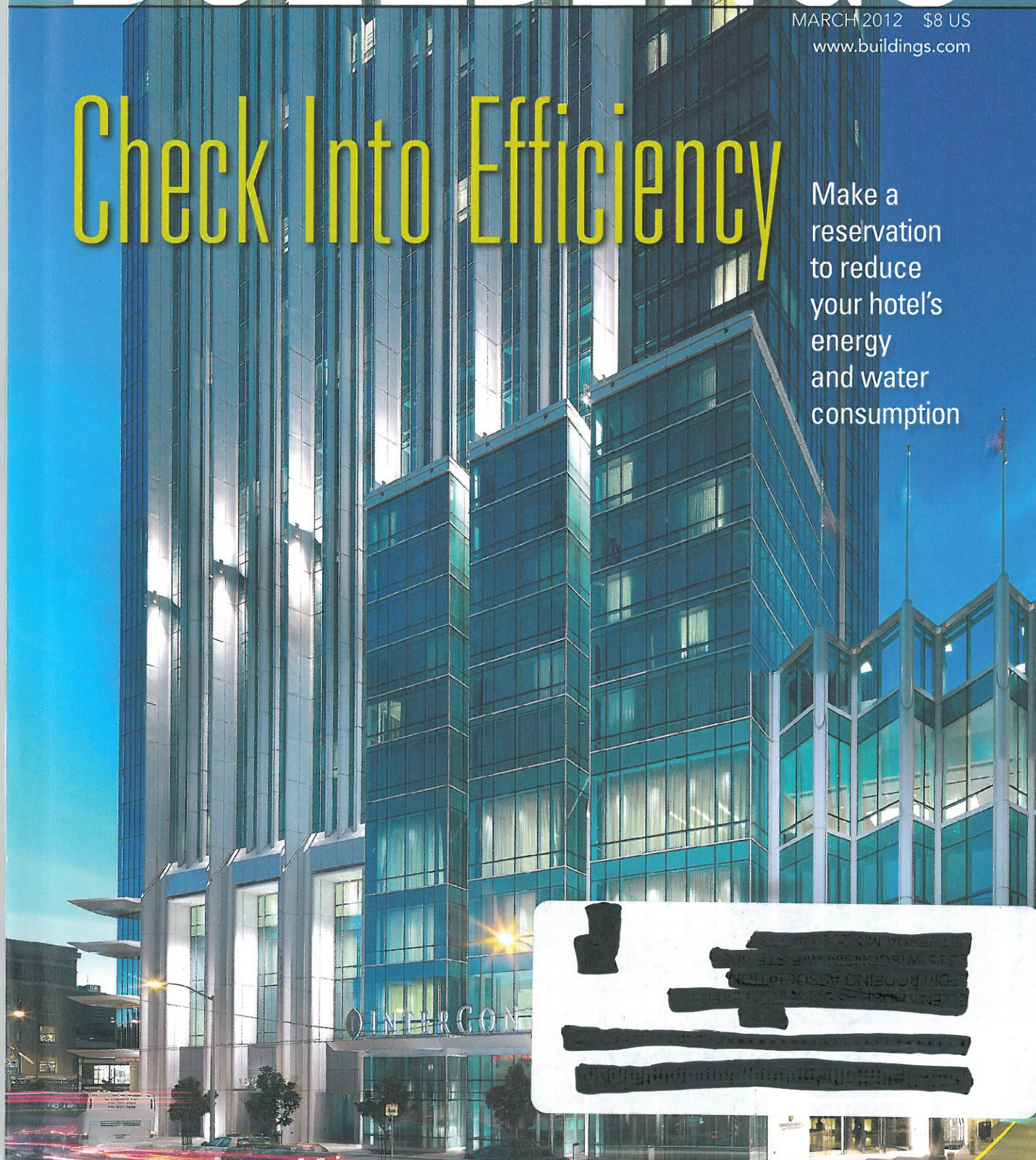
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Compiled by Janelle Penny and Jennie Morton

LEED-EB Outpaces New Construction as Researchers Identify Green Building Risks

Injury Rate Higher on LEED Projects

L EED-certified buildings have an injury rate 9% higher than traditional construction projects, finds a study by the University of Colorado.

The research discovered design and construction methods commonly used to achieve LEED certification can result in decreased worker safety. Published in the *Journal of Construction Engineering and Management*, the study identified 12 of 49 LEED credits that have a greater frequency of injuries or exposure to dangerous environments.

Increased risk factors were largely associated with construction waste recycling, renewable energy installation, and projects targeting the heat island effect, including:

- Recycling construction materials caused a 36% upsurge in lacerations, strains, and sprains.
- Roofs with renewable energy had 24% more falls to lower levels.
- Reflective roof membrane installation increased the chance of eye strain by 19%.
- Innovative wastewater technologies can increase exposure to harmful substances by 14%.



Improve the safety at green building jobsites by eliminating potential hazards during design and focusing on worker training and awareness.

By contrast, respondents indicated that outdoor air delivery monitoring systems and low-VOC materials reduced risk levels during construction.

The study specified that the associated problems with green buildings could be a result of emerging construction methods new to the industry, ineffective construction planning or execution, or an inherent risk in the design elements.

For credits with higher risk levels, owners can work closely with their design firm to proactively mitigate any complications.

"Managing these risks is likely to require safety considerations during design and planning, more efficient communication among designers and constructors, and more effective safety planning and management during construction," the study concludes.

LEED for Existing Buildings Surpasses New Construction

L EED-certified existing buildings are outpacing their newly built counterparts by 15 million square feet on a cumulative basis – a first in USGBC history.

"The market is becoming increasingly aware of how building owners can get better performance through green operations and maintenance," says Rick Fedrizzi, president, CEO, and founding chair of USGBC.

"LEED as a rating system is continuing to evolve an ever greater emphasis on performance, not only in energy, but also in water, location, indoor environmental quality, and materials."

LEED-certified commercial and institutional buildings are also increasing steadily by state for both new and existing facilities. Colorado topped the list at 2.74 square feet per person



The growth of LEED-certified buildings continues to climb. States such as Colorado, Illinois, and New York are leading the way with square footage.

with Illinois in close pursuit at 2.69. The District of Columbia outperformed all states at 31.5 square feet per person.

Other states leading the country for LEED buildings included Virginia, Washington, Maryland, Massachusetts, Texas, California, New York, and Minnesota.

"These states should be recognized for working to reinvent their local building landscapes with buildings that enliven and bolster the health of our environment, communities, and local economies," commends Fedrizzi.

"Looking past the bricks and mortar, people are at the heart of what buildings are all about," he continues. "Examining the per capita value of LEED square footage in these states allows us to focus on what matters most – the human element of green buildings."