Located just west of the majestic Wasatch Mountains, the new Salt Lake City Public Safety building offers a stunning view of the city skyline from each of its four floors. It’s responsible for housing the fire department, police department and emergency operations center, and when it came to voting on its construction, the people of Salt Lake City believed the building itself should be responsible too.

Funded by a taxpayer-approved 2009 bond vote, the 172,000 square-foot, $125 million building is an ambitious, ultramodern structure that makes an immediate impression without leaving a lasting footprint. With curving glass walls, an inviting plaza, grand fountains, sculptures and an outdoor canopy, the building mixes cutting-edge design with classic elegance. And it’s as tough as the men and women who work in it, as it was designed to withstand terrorist bombs and earthquakes up to a magnitude 7.5 on the Richter scale.

But the most impressive part of the Salt Lake City Public Safety building is what it was designed not to do. It is the first public safety building in America designed to work toward net-zero energy balance, meaning it will create as much energy as it uses.

Designed by GSBS Architects of Salt Lake City in conjunction with McClaren, Wilson & Lawrie Inc. of Phoenix, the structure incorporates high-efficiency building and systems design, as well as building operations and occupant energy management strategies, to achieve its goal of long-term sustainability. Building for energy-use reduction and renewable energy was a comprehensive process, one that took into account everything from the solar panels on its roof, all the way down to the underlayment beneath its floors.

Knowing the building’s sustainability goal, contractors chose DUROCK EcoCap Self-Leveling Underlayment as a tile substrate for several key areas of the building. This revolutionary underlayment from USG is a self-drying, quick-setting, eco-friendly, cement-based product for use over concrete and wood subfloors in interior applications. Its sustainable attributes may assist in obtaining Leadership in Energy and Environmental Design (LEED) credits—something essential for this project.

“They were looking for the most environmentally friendly products possible and EcoCap fit the bill,” says Kirk Kazienko, USG Technical Sales Manager, Performance Substrates, “It’s by far the most environmentally friendly self-leveling product on the market...”
**Less Water Equals Greater Sustainability**

**DUROCK™ EcoCap™ Self-Leveling Underlayment** raises the bar for sustainability in a floor-prep product. It’s made with high-recycled content, reduces the carbon footprint by 50% compared to conventional floor prep products and requires fewer resources.

“An important part of sustainable building is using less resources—like water,” says Doug Davenport, Project Manager/Owner, Metro Tile Associates, whose company installed the project’s flooring, “and DUROCK EcoCap does just that.” Reducing the amount of water necessary for mixing saves not only resources and energy for the environment, but also time and money for the project. “It’s a four-story building, and they don’t have water available in every area where they poured the material,” says Rodger Maki, USG Tile and Flooring Sales Representative, “So having to carry 3.4 quarts per bag versus 5.25 quarts adds up to a big labor savings.”

Also, it mixes easily, offers superior crack resistance due to low shrinkage, and features excellent thermal stability. Plus, the low surface pH of DUROCK EcoCap Self-Leveling Underlayment provides enhanced compatibility with floor-covering adhesives. “The chemical make-up of the product actually allows for more strength and bonding to products,” says Mr. Davenport. “It offers the best of both worlds—the environmental benefits plus the superior performance that, these days, everybody is looking for. It’s something that’s as close to perfect as it can be.”

Completed in 2013, the new Salt Lake City Public Safety building has made a small impact on the planet and a big impact on the community. “It not only enhances the environment, but also the working environment for the police and fire department as well as the environment for the entire community,” Kirk Kazienko reflects. “In a city of impressive buildings, this one definitely stands out.”