

Greening the Last Frontier

Rising energy costs and concerns about the environment are leading Alaskan school districts to embrace green building practices—and communities are helping, too

Waking up before the sun rises is difficult for anyone, especially when it is 10 degrees below zero outside. Yet, every day, teachers, bus drivers, crossing guards, custodians, and myriad other school personnel are up and out the door before students and parents even begin their morning routine.

This is especially true in Alaska, where the dark days of winter span 685,000 square miles and four climate zones, and where school officials face a number of unique challenges.

For many Alaskan school districts, the sun doesn't rise until 10 or 11 in the

morning, and in some regions, not for weeks at a time. Despite these conditions, the personnel at these northernmost school districts, including Anchorage and Matanuska-Susitna Borough (MSB) in Palmer, are getting out of bed and making sure their facilities are efficient, safe, and sustainable.

Jason Gamache, architect and sustainability coordinator for McCool Carlson Green Architects in Anchorage, says the connection between the state's extreme conditions and the need to build and operate green buildings is not a new concept.

"People enjoy living here because they thrive on the beauty of the outdoor environment," says Gamache.

This environment is what inspired Gamache and his wife to leave their suburban Washington, D.C., lifestyle and head for the so-called "last frontier" in 2008. Gamache has since served as the primary contact for his firm's LEED-certified and registered school projects, including the Susitna Valley Junior/Senior High School (Su-Valley) in Talkeetna and Mchetanz Elementary School in Wasilla. Both schools are LEED Silver certified. LEED (Leadership in Energy and

Environmental Design) is the U.S. Green Building Council's environmental certification program.

"The environment can include green building practices as a way to reconnect occupants to the outdoors, a strategy that helps people use resources more responsibly and encourages them to preserve the natural beauty of their surroundings," he says.

Communities lead effort

Increased environmental concerns, combined with rising energy costs, have inspired the Anchorage and MSB school districts to address sustainability issues through the facilities they design for their students and staff. Both communities have policies in place that require the school districts to build green schools that earn the LEED Silver certification.

According to Gamache, Anchorage and MSB's green school commitments came directly from groups of citizens with common interests in their communities. The groups worked with the school districts, as well as with the cities' planning departments, community councils, assembly members, and local builders to craft comprehensive policies for green schools. As the father of two school-age children, Gamache saw this as a personal commitment, volunteering to take his professional experience in sustainable school design and lead the group's effort to educate Alaska's school communities about the benefits of green building.

"Anchorage and MSB each wanted to set an example and not follow the same old norm," says Gamache. "Business as usual is no longer efficient or applicable for meeting the current needs of our stu-



dents, teachers, or school facilities.”

Since passing a resolution in 2007, MSB has built three LEED-certified schools. The newest, Su-Valley, is the state’s first high school to earn LEED Silver certification. The 225-student school, which serves grades seven to 12, has green features that include water-efficient landscaping, an abundance of day lighting, and plumbing fixtures that are expected to reduce water usage by 22 percent. The school’s optimized energy performance potentially will reduce energy consumption by 30 percent annually.

“We want the building to last,” says Bob Bechtold, MSB’s project manager. “People in the valley want it to be durable above all. They don’t want to have to replace or maintain it, and green schools

being built in this district create a better learning environment because they have more natural light and because the air quality allows them to focus.”

Through the Green Career Education Program, students from Mat-Su Career & Technical High School in Wasilla will apply LEED standards for existing buildings to their own schools, learning the principles of energy management, design, and other core green building concepts while gaining real-world project experience. In years to come, the course will continue by implementing LEED strategies in other MSB school facilities.

“The goal is to prepare students with the resources they will need to address both current and future environmental conditions of their sur-

roundings, and it is our hope the next generation will be more energy- and environmentally conscious,” says Gamache. “While LEED for Schools is still in its infancy in Alaska, school districts across the state are progressively seeking solutions to address energy use and environmental conditions. The successes of these pioneering green schools are the best generators of contagious enthusiasm.”

The work in Alaska’s school systems to create environmental awareness is a shining example to other school districts, regardless of when the sun rises. ■

Rachel Gutter (rgutter@usgbc.org) is the director of newly launched Center for Green Schools at the U.S. Green Building Council (USGBC) in Washington, D.C.