

Building GREEN in Greensburg

Dwane Shank Motors GM Dealership



Courtesy of Catherine Hart, Greensburg GreenTown

The Dwane Shank GM Dealership was completely destroyed by the tornado, but within just a few days the Shank family was up and running and selling cars to residents who had lost their vehicle in the tornado. The dealership also hurried to build their new 8,300-square-foot building and designed it to maximize energy efficiency and green strategies. This was vital to telling the story and demonstrating the commitment of Greensburg, Kansas, to rebuild green. The new building features a tubular daylighting device and high sidelighting panels to maximize natural light in the sales room and service shop.

ENERGY EFFICIENCY FEATURES

- **South-facing building orientation and windows** maximize the use of natural light to reduce electrical lighting loads
- **Blown-in wall insulation** maximizes efficiency and prevents air leaks
- **Light tubes** bring natural light into dim areas to reduce electricity consumption
- **Skylights** provide lots of natural light to reduce electricity consumption
- **Energy-efficient windows and doors** reduce heat loss in winter and keep the building cool in summer
- **High-efficiency heating and cooling system** reduces energy consumption with a cooling efficiency rating of SEER (seasonal energy-efficiency ratio) 13
- **Radiant floor heating** is used under the slab
- **Energy-efficient lights, lighting controls, and appliances** save energy



Credit: Lynn Billman, NREL

WATER EFFICIENCY

- **Properly sized pipes** reduce water consumption by allowing less water to enter fixtures
- **Low-flow toilets** reduce water consumption in the restrooms
- **Rainwater** is collected to water the landscaping and for carwashing
- **Water is recycled** (sink water, wash water, wastewater) for landscaping and for flushing toilets
- **A point-of-use hot water heater** heats water at the place it's used to prevent heating a large water tank and heat loss through pipes
- **Native plants** are used for landscaping, because they require less water and restore the ecosystem.

SUSTAINABLE CONSTRUCTION AND MATERIALS

- **Job site recycling** was incorporated into construction
- **Low-maintenance, durable products** reduce the frequency of replacing building components
- **Minimized building materials**, such as smaller air ducts that require less energy
- **Reusable building materials** allow for reuse at the end of the component's life
- **Recycled building materials** were used, such as steel framing with high recycled content.

INDOOR AIR QUALITY AND ENVIRONMENT

- **Moisture control** was incorporated into mechanical systems
- **Nontoxic building products**, such as paints with low levels of volatile organic compounds minimize indoor pollutants
- **Acoustical window glazing** keeps indoor noise levels more comfortable.

LEED RATING EQUIVALENT

- Certified