The Power to Save

Preserve our environment and make some change

The City's Green Garage: Vehicle Storage Building

Fort Collins Utilities' Integrated Design Case Study

Simple Elegance

You may not think of a vehicle storage facility as the place for cutting-edge green building techniques, but think again.

The City of Fort Collins set a goal to achieve the Leadership in Energy and Environmental Design (LEED®) Silver certification for the Fort Collins Utilities vehicle storage and wash facilities at the corner of Vine and Wood Streets.

The facility had been planned for years and was drawn on the site map as a long rectangular building. One of the first changes the design team made was to rotate the building by 90 degrees, improving daylighting opportunities and reducing snow removal needs by eliminating northern parking and driveway pavement.

"This is not your typical garage. From the unique sawtooth extension design to the brilliant daylit interior, this is an impressive facility– and it saves money, too. Even more important though, the people using it, like it."

-Ron Kechter,
Facilities Project Manager

An energy saver with warm floors and daylighting—the new Utilities vehicle storage building is an example of cutting-edge green building techniques.

Innovative Features

The building is expected to use 50 percent less energy than typical construction, saving over $9,000 per year. The facility is on track to achieve LEED certification, utilizing such features as:

- sawtooth-design roof with south-facing windows for heat and light;
- construction waste recycling of wood and metal;
- radiant flooring for efficient heating;
- structurally-insulated panels (SIPs) that provide continuous insulation, with fiber reinforced plastic (FRP) facing for a durable interior surface;
- white roofing to reduce cooling load;
- condensing boilers with 93 percent efficiency; and
- overhead garage doors with insulating value of R-19.

"This design builds on the lessons learned with sustainable design at the 215 N. Mason St. offices," said Jack Gianola, facilities project mamagement, planning and design manager for the City of Fort Collins. "By setting a goal to achieve LEED from the very beginning, our design teams were committed to energy-efficiency and sustainable design, and we ended up with a better building overall."

Integrated Design Assistance

This project received support from Fort Collins Utilities' Integrated Design Assistance Program. The program offers staff support and expertise during the design process and financial assistance to supplement the incremental cost of energy consultants.

What is LEED?

The U.S. Green Building Council (USGBC) developed the Leadership in Energy and Environmental Design (LEED) rating system as a national, voluntary standard for green buildings.

LEED provides design teams with a simple checklist approach. The checklist encourages best practices and innovation in site selection and use, water conservation, energy efficiency and indoor air quality. The rating system also encourages the use of environmentally preferable materials. The checklist can be downloaded for free from www.usgbc.org/leed.

Structurally-insulated panels provide a continuous insulation level that traditional framing can't match.

Project Details

Facility

Fort Collins Utilities Vehicle Storage Building

Facility Size

15,252 square feet

Facility Location

Fort Collins

Project Cost

$2.4 million

Design Team

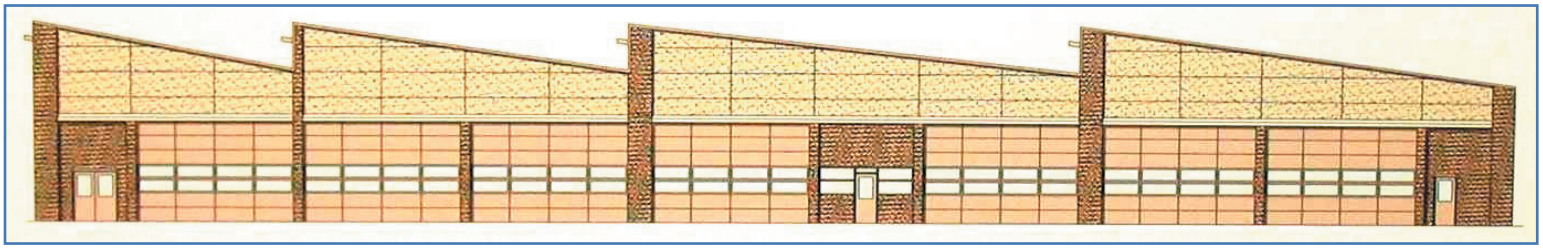
- Architect: Aller Lingle Architects, Fort Collins
- LEED Consultant: Ensar, Boulder

More about LEED

U.S. Green Building Council: www.usgbc.org/leed

Contact

- Ron Kechter, City of Fort Collins Facilities, (970) 221-6805, rkechter@fcgov.com



The sawtooth roof design, with high south-facing windows, provides daylighting throughout the building.