



Sawtooth roof design allows daylighting from the north and optimized PV performance.

IDAP

Woodward partners with IDAP to spool-up six-figure savings at new campus.

During the design and construction of its Industrial Turbomachinery Systems (ITS) building, Woodward called on the assistance of Fort Collins Utilities' Integrated Design Assistance Program (IDAP) to incorporate energy and water efficiency.

Energy savings are a priority for Woodward, not only at the new building, but also with manufacturing systems involving high pressure compressed air and variable flow liquid systems for product testing.

By partnering with IDAP, Woodward received more than \$350,000 in incentives and reduced electric use by 1.2 million kilowatt hours - saving more than \$120,000 annually.

INNOVATIVE FEATURES

- High efficiency lighting fixtures and controls
- High efficiency building shell, including insulated metal panel walls, enhanced roof insulation and advanced air sealing
- Daylighting design to reduce lighting electricity use, exterior shading devices to control solar heat gain
- 125 kW of Photovoltaics (solar electric)
- High efficiency heating and cooling system, including high efficiency chillers, variable speed drives and premium efficiency motors
- Over 350 trees from the existing golf course were reused for architectural building features
- Energy management systems (EMS) that monitor and improve energy use and real time costs savings
- Low-water landscaping and efficient irrigation systems
- Public building performance displays
- High efficiency kitchen appliances and cafeteria ventilation

WOODWARD INC.

With roots dating back to 1870, Woodward creates innovative energy control solutions to optimize the performance and efficiency of products in the energy and aerospace markets.

PROCESS OPERATIONS

- Innovative use of variable speed drives for the Liquid Test Systems
- Increased compressed air storage to optimize operational efficiencies, leveling peak demand and associated costs

OVERALL SAVINGS

- More than \$350,000 in incentives
- Electric use decreased by 1.2 million kilowatt hours per year
- \$120,000 annual savings

PROJECT CHAMPIONS

- Jennifer Ray, ITS Program Manager
- Gene Hogan, Assembly & Test Engineer with Woodward
- Jason Lechman, Mechanical Engineer with Woodward
- Julie Sieving, Senior Engineer with Brendle Group
- Shannon Carravallah, Senior Mechanical Engineer with Ghafari Associates
- Angie Milewski, Principal Landscape Architect with BHA Design Inc.
- Paul Dvorak, MEP Design Phase Manager with Mortenson Construction
- Wayne Timura, Principal with Next Level Development Inc.

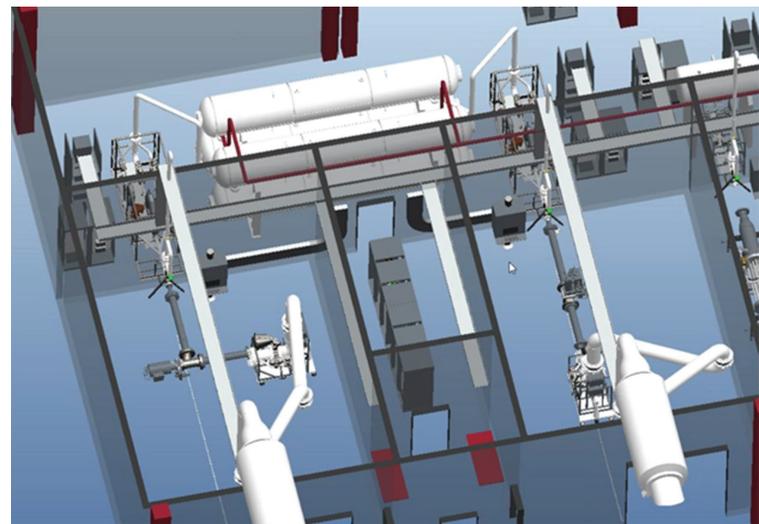
For project updates and questions, contact Julie Sieving at Brendle Group, 970-207-0058 or JSieving@BrendleGroup.com.



Daylighting is used throughout the building. The silver maple stair treads were harvested from the building site.

INTEGRATED DESIGN ASSISTANCE PROGRAM (IDAP)

IDAP helps project owners, developers, design professionals and builders create high-performing buildings. Financial incentives for building owners and design teams are available. To participate, visit fcgov.com/idap.



Increased compressed air storage reduces peak electric demand.

