

Laramie County Library Cheyenne, WY

In need of a new library to house its growing collections, Laramie County designed and built a new library in Cheyenne, WY that achieved a LEED-Silver Certification under the U.S. Green Building Council's LEED for New Construction program. It is the first public building in Wyoming to achieve LEED certification.



Photo: AndersonMasonDale, Architects

Completed in August 2007, the Library's total construction cost was \$16.7 million for the 103,593 square foot facility (\$161 per square foot). The library was funded by a voter-approved tax passed in November 2003 that increased the sales tax by 1 cent to raise \$26.9 million, a donation of \$1.7 million by the Laramie County Library Foundation. The Wyoming Business Council, State Energy Program provided funding for LEED Certification.

The Library has received notable recognition, including LEED-Gold Certification by the USGBC, "Library of the Year" award by *Library Journal*, and was named one of the Nation's 'Top Ten' Library Destinations by USA Today.

The Laramie County Library demonstrates multiple areas of sustainability, particularly resource and energy consumption. In an era of increasingly tight budgets, the new 'green' library saves money in its operating costs since it is designed to achieve a 40% reduction in energy costs compared to a typical library built to current energy code requirements. It is also a valued asset in the community; for example, the building accommodates specialized activities for all age groups, a computer lab for trainings and educational classes, meeting rooms for community groups, and individual study spaces. Staff productivity has increased with enhanced workspaces and the use of automated systems for book returns and sorting materials, and library patronage and circulation rates have increased dramatically. It also demonstrates the library's commitment to the community and to a more sustainable future.

Quick Facts:

Laramie County Library
2200 Pioneer Ave, Cheyenne, WY
Lucie P. Osborn, County Librarian
Laramie County Library System
Phone 307-773-7220
Web site: www.lclsonline.org

Date Completed: August 2007
Construction Costs: \$16.7 million
Size: 103,593 Sq. Ft.
LEED Rating: Gold Certification, LEED-NC
Version 2.1
Score: 40 credit points

Projected Annual Energy Use: 72.3 kBtu/ft²

Projected Annual Energy Savings: \$39,000

Project Team:

AndersonMasonDale, Architect
www.amdarchitects.com

FCI Constructors, General Contractor
www.fciol.com

Architectural Energy Corporation

Below is a list of sustainable design features, organized by LEED category. The library achieved 40 LEED for New Construction Credit points, making it eligible for LEED Gold Certification.

Sustainable Sites (7/14 points):

- Erosion and sedimentation control, including use of stormwater management measures to reduce runoff
- Infill location, accessible by public transportation, bicycle and pedestrians
- The building is oriented to maximize solar gain in the winter, with shading devices to minimize solar gain during the summer



Laramie County Library, Information Desk
Photo: Fred J. Fuhmeister, Time Frame Images

Water Efficiency (3/5 points):

- Water efficient landscaping
- 30% water use reduction throughout the building, including use of low-flow or waterless fixtures

Energy & Atmosphere (8/17 points):

- Fundamental commissioning of mechanical systems
- High efficiency HVAC system and efficient envelope
- Daylighting and advanced lighting systems with occupancy sensors, and 'stepped' controls that automatically adjust interior lighting levels based on available daylight
- Designed to achieve 27% reduction in total energy consumption, and 39% lower energy costs than a typical building built to code

Materials and Resources (7/13 points):

- Storage and collection of recyclables
- 50% salvaged or recycled construction waste
- 15% recycled content materials used

“As the first publicly funded LEED certified project in Wyoming, the Gold LEED rated Laramie County Library is truly groundbreaking in many ways. With assistance from a grant to fund LEED certification from the Wyoming Business Council, the new library will serve as a model for others interested in LEED construction. Thanks to the support of the citizens of Laramie County, the library is a focal point – it serves as a community center, educational facility, gathering place and destination that strengthens the fabric of our community. It brings new opportunities for interaction, learning and expression of ideas, and now it serves as an example of sustainable design and operation. We are proud to receive a Gold LEED rating and value the contribution the LEED certification process had in our selection as the *Library Journal*/Gale *Library of the Year for 2008*.”

- **Lucie Osborn**, County Librarian, Laramie County Library System

- 20% of materials used are manufactured locally
- 50% of wood is harvested locally and certified wood

Indoor Air Quality (IAQ) (10/15 points):

- Minimum IAQ performance
- Environmental Tobacco Smoke (ETS) control
- Use of low-emitting materials and adhesives
- Thermal comfort monitoring systems
- Daylight views for 90% of space

Innovation & Design Process (5/5 points)

- Educational outreach
- Process water treatment
- LEED Accredited Professional used on project

Information Resources:

- **Articles**
 - **Library of the Year 2008: Laramie County Library System, WY The Impact Library.**
<http://www.libraryjournal.com/article/CA6566453.html>
 - **USA Today: America's Top Ten Libraries. 2008**
http://www.usatoday.com/travel/destinations/10great/2008-03-06-10great-libraries_n.htm?loc=interstitialskip
 - **Energy design incorporated in Wyoming public buildings.**
http://www.wyomingbusiness.org/pdf/energy/Vol_14_No_2.pdf
 - **Project Profile: Laramie County Library**
(by FCI Constructors, Inc., General Contractor for the Library)
<http://www.fcio.com/portfolio/municipal/laramiectylib.htm>
 - **Project Profile: Laramie County Library**
(by AndersonMasonDale, Architect)
<http://www.amdarchitects.com/portfolio/community/tabid/1323/Default.aspx>

- **Websites**

- **Laramie County Library System**
www.lclsonline.org
- **Wyoming Business Council, State Energy Program**
www.wyomingbusiness.org/business/energy.aspx
- **Southwest Energy Efficiency Project**
www.swenergy.org
- **U.S. Green Building Council**
www.usgbc.org
- **Green Libraries**
www.greenlibraries.org
- **Toolkit for Planning and Building Public Libraries: Energy Efficiency**
http://library.utah.gov/librarian_resources/toolkit/energy.htm
- **ENERGY STAR**
(benchmarking tools and energy management guidelines for public facilities)
www.energystar.gov