



# Morrison-Maierle, Inc – Bozeman Bozeman, Montana

**35%** energy savings over code  
– minimum building

**79%** of cooling load provided  
by fresh air economizer

**38%** reduction in potable  
water use

 **MORRISON-MAIERLE, INC.**

## LEED® Facts

Morrison-Maierle, Inc. – Bozeman  
Bozeman, Montana

LEED for NC v2.2  
Certification awarded 10/15/08

**Gold** **39\***

Sustainable Sites 7/14

Water Efficiency 4/5

Energy & Atmosphere 9/17

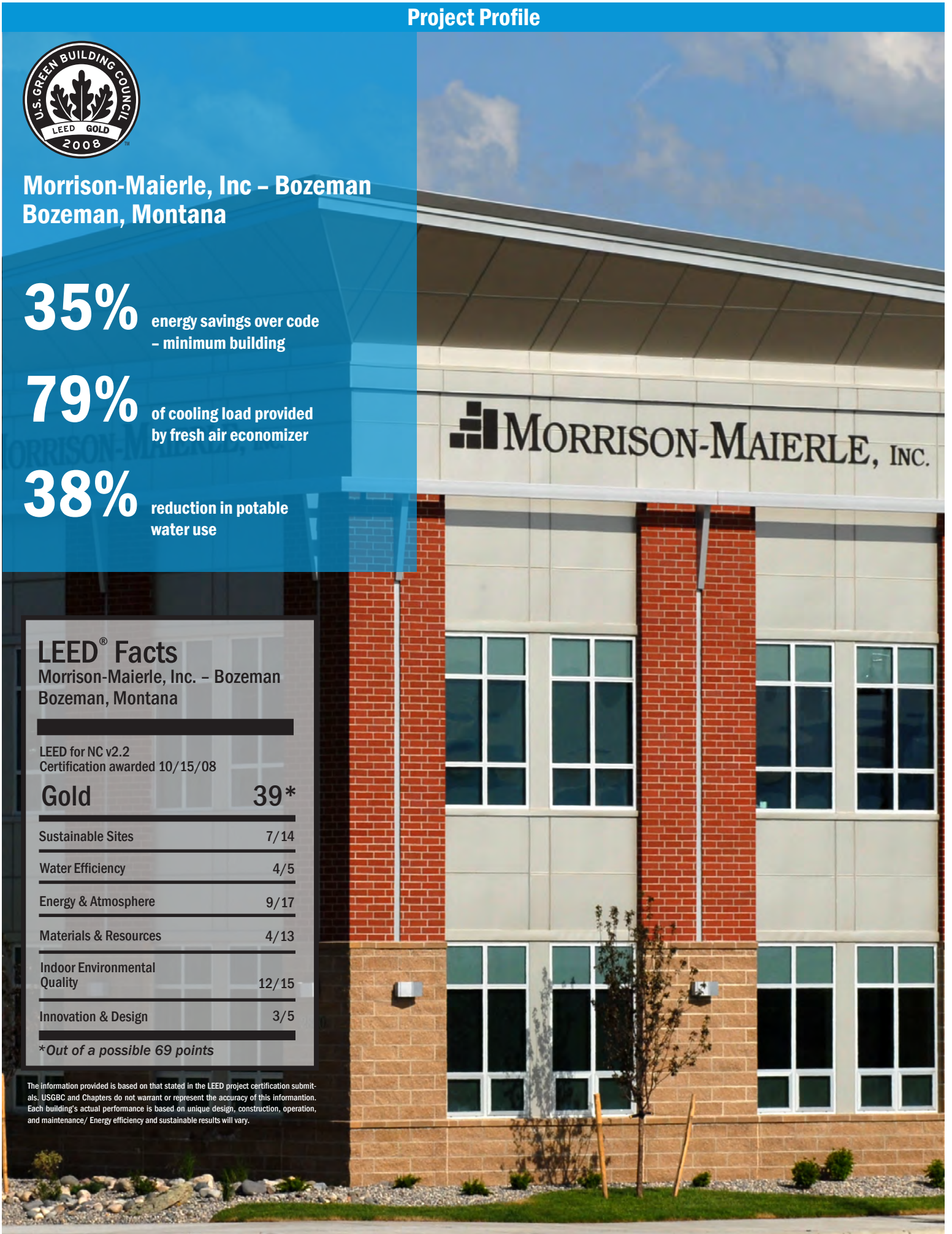
Materials & Resources 4/13

Indoor Environmental  
Quality 12/15

Innovation & Design 3/5

*\*Out of a possible 69 points*

The information provided is based on that stated in the LEED project certification submittals. USGBC and Chapters do not warrant or represent the accuracy of this information. Each building's actual performance is based on unique design, construction, operation, and maintenance/ Energy efficiency and sustainable results will vary.



### Morrison-Maierle, Inc – Bozeman

# Building a Sustainable Future within a Budget

Morrison-Maierle, Inc. has provided a healthy energy efficient building to its local employees, all within a budget.

## PROJECT BACKGROUND

In 2007, Montana's oldest and largest engineering firm was ready for a new home in Bozeman, Montana. Morrison-Maierle, Inc. has been in business in Bozeman, Montana for over 40 years, employs some 90 people locally and was occupying three separate buildings. The three buildings were in-efficient from a work-flow standpoint as well as an energy consumption standpoint. The primary goal of the new office building was to consolidate all the employees under one roof and provide an efficient and healthy workplace. The decision was made to lead by example and follow the USGBC's LEED program for the new building. ThinkOne Architects and Morrison-Maierle's engineers designed the building to a LEED Gold standard and what resulted was a 43,000 square foot high performance building that provides a healthy environment for the employees.

## STRATEGIES AND RESULTS

The two primary goals within the LEED framework were Indoor Environmental Quality and Energy Performance of the building. The design team took these two elements as the primary focus of the LEED program and designed a building around it. Sustainable features that were incorporated into the Morrison-Maierle Bozeman office building include:

- Thermostats in each office space provide individual temperature control and optimize the building's occupants' comfort and performance.
- The HVAC system utilizes high-efficient hot water boilers, variable speed fan air handling units, radiant floor garage slab heat and a high-efficient chilled water system to provide a "high performance" building and reduce the consumption of non-renewable energy.
- The building envelope has been designed using roof and wall insulation values far above the energy code minimums, which reduces the HVAC heating and cooling loads and consumption of non-renewable energy.
- All the exterior offices have high-efficient, low-emittance windows and interior door sidelights to allow maximum use of daylight in the interior and provide excellent views. Interior workspaces are also provided with natural daylight through the use of high efficient skylights (Kalwal® glass).
- High-efficient lighting is being used throughout the building along with induction lamp lighting being provided for exterior site lighting. To conserve energy, most office lighting fixtures have four settings. This provides extremely efficient (low energy) overall lighting design.
- All the paint, adhesives, and carpeting are certified as low-emitting volatile organic compound (VOC) materials, to ensure high air quality for the building's occupants.
- A section of the second story roof will be a green roof plaza, consisting of a sedum vegetation and paver patio area with tables and chairs for employees to coordinate work, meet with clients, eat lunch, or socialize.
- An onsite well provides irrigation and vehicle wash water (non-potable), reducing the necessity to use processed, potable City of Bozeman water. The well utilizes a variable frequency drive pump to reduce energy and maintenance costs.
- Landscaping was designed to reduce the water usage requirements.
- Local, regional, and recycled materials were used on both the interior and exterior of the building.

**"A lot of people think that going through and being LEED certified is expensive and prohibitive, but what we found is that it can be done within a budget, and when you look at the long-term energy costs, it certainly has some major advantages."**

Jack Schunke, P.E., Morrison-Maierle, Inc.  
Bozeman Office Manager and Vice President



Owner: Morrison-Maierle, Inc.  
Contractor: Dick Anderson Construction  
Developer: Mitchell Development Group, LLC  
Architect: ThinkOne Architects  
Civil Engineer: Morrison-Maierle, Inc.  
Structural Engineer: Morrison-Maierle, Inc.  
MEP Engineer: Morrison-Maierle, Inc.  
Commissioning Agent: Facility Improvement Corporation (FICO)  
LEED Consultant: Morrison-Maierle, Inc.

Project Size: 43,000 square feet

Total Project Cost (cost per square foot in parentheses):  
\$6,150,000 (\$145 per square foot)

Photography Courtesy of: Linda Donaldson

## ABOUT MORRISON-MAIERLE, INC.

Morrison-Maierle, Inc. is Montana's largest and oldest engineering firm. Founded in 1945, Morrison-Maierle, Inc. employs approximately 400 people in 10 offices throughout Montana, Wyoming, Utah and Arizona. Ranked among the Engineering News Record's "Top 500 Design Firms" in the United States and the CE News "Top 25 Best Civil Engineering Firms to Work For", our broad range of engineering, planning, surveying and scientific capabilities can be brought together to meet the specific needs of each project.



**MORRISON  
MAIERLE, INC.**  
An Employee-Owned Company  
www.m-m.net