



**SPRINGS PRESERVE  
DESERT LIVING CENTER and GARDENS  
LAS VEGAS, NV**

**40%** of building materials locally and regionally sourced

**84%** of construction waste recycled

**100%** water collected and reused on-site

**LEED® Facts**

**Springs Preserve  
Desert Living Center and Gardens  
Las Vegas, NV**

LEED for New Construction  
Certification awarded May 15, 2008

**Platinum 52\***

Sustainable Sites 12/14

Water Efficiency 4/5

Energy & Atmosphere 9/17

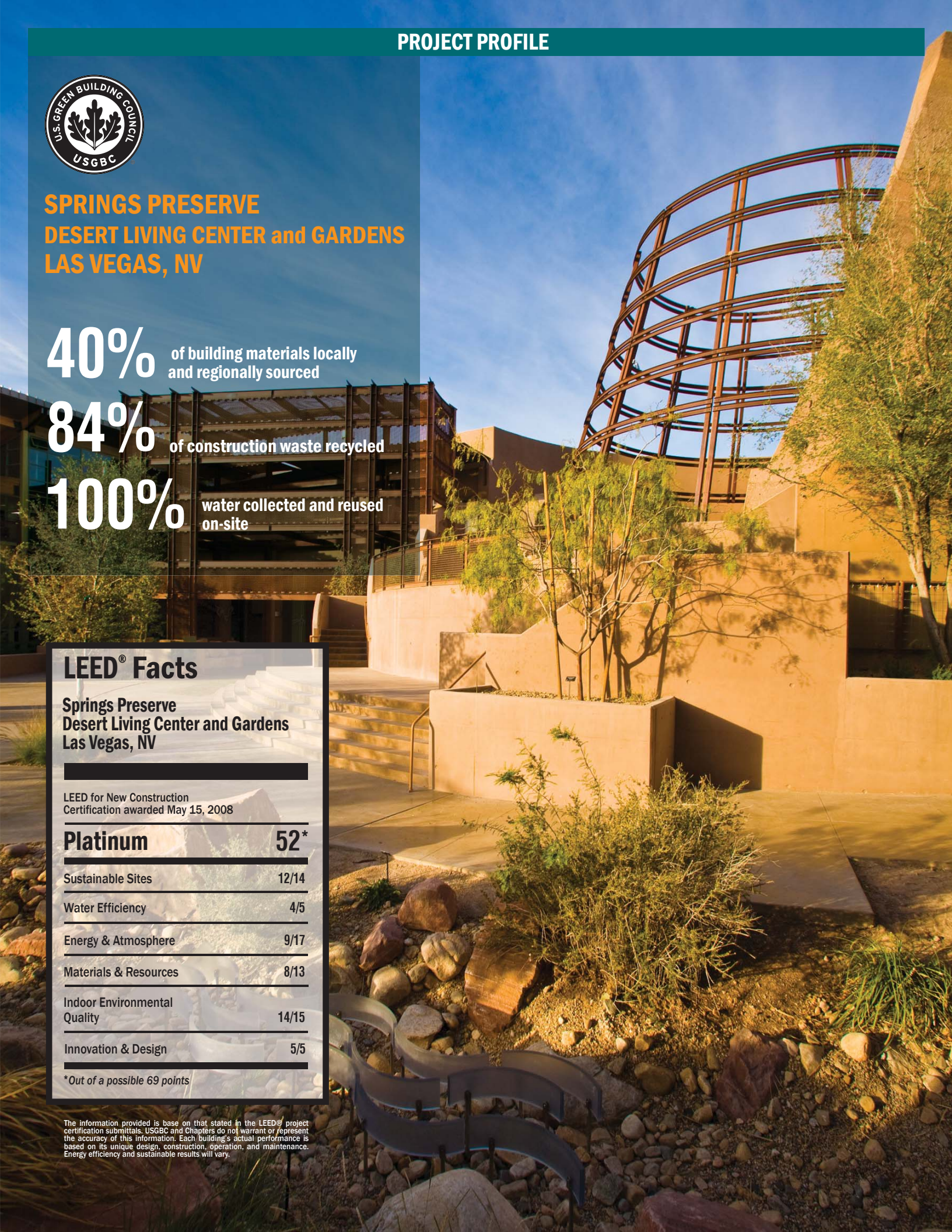
Materials & Resources 8/13

Indoor Environmental Quality 14/15

Innovation & Design 5/5

\*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 its unique design, construction, operation, and maintenance. Energy efficiency and sustainable results will vary.



## SPRINGS PRESERVE DESERT LIVING CENTER and GARDENS

# Desert Living Simplified

## Desert Living Center Promotes Sustainable Life in the Mojave Desert

“It’s a virtual miracle that a city like Las Vegas can exist and thrive in the middle of one of the most inhospitable and resource-poor climates in the world. This anomaly makes the concept of sustainable living a very relevant topic.”

Francis Beland  
Former Executive Director Springs Preserve

### PROJECT BACKGROUND

Located within the 180-acre Springs Preserve, the Desert Living Center is an action-based public outreach and applied research facility designed to “promote sustainable life in the Mojave Desert.” Through dynamic, ongoing education programs, the Center serves as a catalyst for individual and community change from being “in the desert” to being “of the desert.”

### STRATEGIES AND RESULTS

The basic design of the Desert Living Center reflects the local environment at every opportunity, beginning with solar orientation to optimize the benefits of the sun as a lighting and heating source. It continues underground by utilizing the earth as a thermal insulator for the structures by integrating the buildings into the land. It then carries above ground where the mass and thickness of walls assist in protecting heat gain and loss. Thermal mass is achieved through the use of rammed earth and cast-in-place concrete construction. Additionally, through the use of straw bale construction, the buildings are able to achieve very high insulation values, which protect the inside environment from the intense Las Vegas heat. The five-building facility utilizes long roof overhangs to protect the buildings from summer heat gain while allowing the low sun of winter to warm the interior spaces. Cool towers and courtyard designs are intrinsic to reducing heating and cooling loads. Technologies for the Desert Living Center are incorporated throughout the facility, but are not a primary focus in the design. Due to the rapid change of technological advances, a product that may be cutting-edge today could be outdated in two years. The technologies that are used work as a compliment to the basic sustainable design principles. These include automated window openers to take advantage of natural ventilation, advanced cooling strategies, radiant floor heating systems, light photocell sensors, solar hot water heaters, and reclaimed water systems, to name a few.

### ABOUT THE DESERT LIVING CENTER AND GARDENS

A five-acre conservation garden demonstrates desert-appropriate water and energy-conserving design solutions by applying current knowledge and technologies. Garden exhibits are used to further Mojave education, conservation and protection, planting design, landscape lighting, “how to” areas for irrigation and planting. Also included is a constructed wetland for treatment of all gray and black water for the entire Preserve site, to be reused in the DLC toilets and gardens.

### AWARDS and RECOGNITION

- 2009** WaterReuse Public Education Program of the Year for the Constructed Wetlands  
*WaterReuse Association*
- 2008** Excellence In Design Award, Institutional (not including schools), Non-Profit, Healthcare Category  
*Environmental Design + Construction Magazine*
- 2007** High Performance Building Award  
*Sustainable Buildings Industry Council*
- 2007** Project of the Year  
*American Society of Landscape Architects, Nevada*
- 2007** Award of Excellence for Commercial, Retail, & Mixed Use  
*American Society of Landscape Architects, Nevada*
- 2007** Honor Award, Built Category  
*American Institute of Architects, Nevada*
- 2007** Best Public Green Building Project in Nevada  
*Southwest Contractor Magazine*
- 2007** Best Landscape/Hardscape Project in Nevada  
*Southwest Contractor Magazine*



**Owner:** Las Vegas Valley Water District  
**Developer:** Las Vegas Valley Water District / Springs Preserve  
**Architect:** Lucchesi Galati  
**Interior Designer:** Lucchesi Galati  
**Civil Engineer:** PBS&J  
**Contractor:** Tiberti / Whiting - Turner  
**Landscape Architect:** Deneen Powell Atelier  
**Structural Engineer:** Stantec  
**MEP Engineer:** Keen Engineering (Stantec)  
**Mechanical Engineer:** Harris Consulting Engineers  
**Plumbing Engineer:** Harris Consulting Engineers  
**Electrical Engineer:** Harris Consulting Engineers  
**Lighting Designer:** Clanton & Associates  
**Daylighting:** Ensar Group  
**Wetlands/Living Systems Engineer:** Natural Systems, Inc.  
**Interpretive Exhibits:** Aldrich Pears Associates  
**Commissioning Agent:** Dynamic Commissioning Solutions, Inc.  
**LEED Consultant:** Paladino and Company  
**Photography:** Tom Craig, Opulence Studios

**Project Size:** 180 acres; 54,000 SF

### ABOUT LEED

The LEED® Green Building Rating System™ is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S. Green Building Council’s website at [www.usgbc.org](http://www.usgbc.org) to learn more about LEED and green building.

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