



Zion National Park Fire Management



Zion Opens New Emergency Operations Center *Facility is Model for Sustainable Design*

Zion National Park recently celebrated the completion of their Emergency Operations Center (EOC) with a grand opening on May 20, 2004. This newly constructed \$3.5 million; sustainably-designed building will house all staff, vehicles and equipment involved with emergency operations in the park in one location to better serve an ever-increasing visitor population.

The concept of an EOC in Zion began in 1989 when it was realized that a facility was needed to house all the emergency operations in the park, including law enforcement, search and rescue, emergency medical services, resource protection and wildland and structural fire. Current Chief Ranger Aniceto (Cheto) Olais was instrumental in putting this project back on track after many years of no action. Prior to the completion of the EOC, emergency equipment was stored in six different locations, both within and outside the park. The EOC now provides Zion with a centralized location which will provide for a quicker and more efficient emergency response to all types of incidents.

Cooperative funding for the EOC became available in 2001 through the National Wildland Fire and Fee Demonstration Programs. Design for the facility began in May, 2001. Kim Campbell of Campbell & Associates, Architects of St. George, Utah, worked closely with Park Service Landscape Architect, Jim Butterfus and Olais, in further developing a program and floor plan for the new building. Much of the design was driven by a recent trend towards sustainability, utilizing the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEEDS) Ratings System as a gauge.

Construction on the EOC began in November, 2002, and was completed 18 months later. The split-level, 13,167 square foot EOC sits on a 2.07 acre site, with an 8,900 square -foot footprint. It contains office space for up to 45 employees and provides them a training/conference room, a library, climbing wall and state -of- the -art fitness room that is available to all park employees, as well as their family members over age 13. Other features include parking bays, storage areas and work stations for wildland and structural fire engines and search and rescue and emergency medical vehicles. This will all result in a more efficient and productive work space for staff, and the park will be able to better respond to any emergency.

The EOC is a model of sustainability and energy reduction. High-efficiency and alternative heating and cooling systems, coupled with maximized use of natural light, thermal massing, and other site considerations are expected to reduce energy consumption by 70% and energy costs by 51%.

Site design for the EOC emphasized proper orientation to maximize solar capabilities while reducing heat gain in the summer months. Photovoltaics provide 10% of the building's total power load. Energy efficient appliances are used throughout the building, and a ground-source heat pump reduces energy loads by providing alternative heating and cooling. Solar water heaters preheat all the hot water for the building, reducing energy consumption as well. The restrooms utilize low- flow or automatic fixtures to save water, and waterless urinals were installed in the men's restroom to further reduce water use.

Perhaps the most noticeable example of sustainability is the use of natural light. Energy-efficient windows in nearly all the office spaces provide light and views out, but minimize solar transmittance. Occupancy light sensors are used to turn on light fixtures, and dimming sensors adjust light levels depending on the amount of daylight entering the room. Beyond energy and resource considerations, these sustainable features serve to create a healthier environment for employees, and a more comfortable, productive space for all those who use the facility.

With the completion of the EOC, Zion now has a centralized, energy-efficient facility from which to coordinate all the emergency operation activities in the park and surrounding area. This will provide park visitors and local communities, now and for many years in the future, with a quicker and more effective response to all types of emergency incidents and help park officials to better carry out their mission of caring for and protecting the resources of Zion National Park.



EOC fitness room



EOC office spaces