

## Desert Dome

Henry Doorly Zoo, Omaha, Nebraska

### Project Statistics

Area:	82,000 SF
Completion Date:	2002
Construction Cost:	\$31.5 Million

Research, conceptual design and budgeting began in 1996 for the Henry Doorly Zoo Desert Dome. Alvine Aquatics participated in two years of research, conceptual design and budgeting with the zoo and architect. In 1998, funding became available and the project moved forward. The unique shape, material and biologically diverse environment gave our engineering team the opportunity to tackle several design challenges and learning opportunities.

The project blossomed into the “world’s largest geodesic dome and indoor desert”, standing 145 feet high and 233 feet wide. Visitors are immersed in three diverse desert environments contained on the first level: the Namib Desert of southern Africa, the Red Center of Australia and the Sonoran Desert of the southwestern United States and northwestern Mexico.

Animals and plants are showcased in a man-made environment designed to closely resemble nature. A 55-foot central mountain is at the center, containing displays, caves, waterfalls and a continuous sand fall. Paths surrounding the cave lead visitors through breathtaking twists and turns, starting with a 30-foot sand dune and moving on to the reptile cave, cactus forest and hummingbird canyon.

### An award-winning project...

2003 Engineering Excellence Grand Award  
American Consulting Engineers Council, Nebraska  
Chapter (ACEC/N)



### Major Program Spaces

- Upper level desert environment
- Lower level swamp environment
- Waterfall and water features
- 30-foot sand dune
- 55-foot central mountain
- Saguaro cactus forest
- Kuiseb canyon oasis
- Matterhorn of Africa
- Wave rock
- Desert reptile caves
- Hummingbird canyon

