



Golden Hills Resource Conservation and Development

Oakland, IA

Location: 712 S. Highway 6, Oakland

Type of Construction: New

Construction Cost: \$350,000

Square Footage: 3,850

Cost per Square Foot: \$91

Project Website: <http://www.goldenhillsrkd.org/>

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Project Description: Golden Hills Resource Conservation and Development is a nonprofit organization that strives to protect and encourage sustainable use of natural resources in western Iowa. As part of their commitment to sustainability, in 2000 Golden Hills constructed a new building to house their programs using green and sustainable practices. One of the main goals of the project was “to demonstrate the ease and long-term cost-effectiveness of using recycled products and renewable energy alternatives in building projects.”

Sustainable Features:

- Site is set back from highway for noise reduction, space for geothermal layout, and better drainage
- Indigenous plants surround the building, with deciduous trees on the south side for shade and coniferous trees on the north side for windbreak
- Drought resistant grasses on lawn
- Plants that tolerate moist soil and biodegrade toxic materials collect the site’s runoff
- Geothermal heating and cooling reduces natural gas



consumption by 37%

- Energy-efficient halogen and fluorescent interior lighting
- Clerestory windows provide lighting and ventilation
- South-facing windows are double-paned to provide passive solar heating in winter, which reduces natural gas consumption by 17%
- All windows have an R-value of 6.7
- Exterior walls are constructed of insulated concrete forms with an R-value of 24.95 and are much more durable than a wood frame
- Foam contains recycled resins
- Concrete contains a minimum of 15% fly ash, which reduces the amount of energy it takes to produce it
- Siding is composed of sand, cement, fly ash and recycled fibers, has an R-value of .15 and a life expectancy of 50 years
- Cellulose insulation in the ceiling contains recycled newsprint and has an R-value of 30
- Walls are made of gypsum sheetrock, a by-product of the coal industry
- Building is expected to be viable for at least 75 years
- The materials and techniques used kept nearly 15 tons of waste out of landfills
- Paints, stains and sealants contain very little or no HCFCs, VOCs or formaldehyde
- Concrete flooring instead of carpet provides for more durability and healthier indoor air

