

# Lyal Burkholder Middle School

Clark County School District Henderson, Nevada



Energy Use Intensity = 78.9 kBtu/sf/yr  
Percent CO2 Reduction = 38%  
ENERGY STAR design rating = 89

Savings Statistics (compared to an average building EPA rating of 50)  
Energy Savings = 5,436,727 kBtu  
CO2 Savings = 657,500 lbs CO2

- 112,000 sf total (25,500 sf refurbished; 86,000 sf new) 100% educational space
- Construction to be completed June, 2007
- \$76,617 annual energy cost; \$0.68/sf/yr
- Estimated energy use 26.2 kbtu/sf/yr
- Geothermal Heat Exchange handles 60% of building cooling load, the remaining 40% is cooled with a cooling tower
- No boiler, all domestic hot water heated with building's own waste heat.
- 95% of classrooms and offices have natural daylight
- Design Includes:
  - Classrooms and offices on north and south have stepped switching for lighting and individual thermal controls
  - Major glazing occurs on north and south elevations only, with louvered shades along south elevation
  - Design includes restoration of existing gymnasium to preserve local heritage and reduce consumption of new materials