BE ERBRICKS
Bottom line thinking on energy.

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OWNER: State of Idaho Division of Public Works, College of Southern Idaho

LOCATION: Twin Falls, ID

BUILDING TYPE: Higher Education

SIZE: 72,270 square feet

COMPLETION DATE: January 2010

UTILITIES: Idaho Power, Intermountain Gas

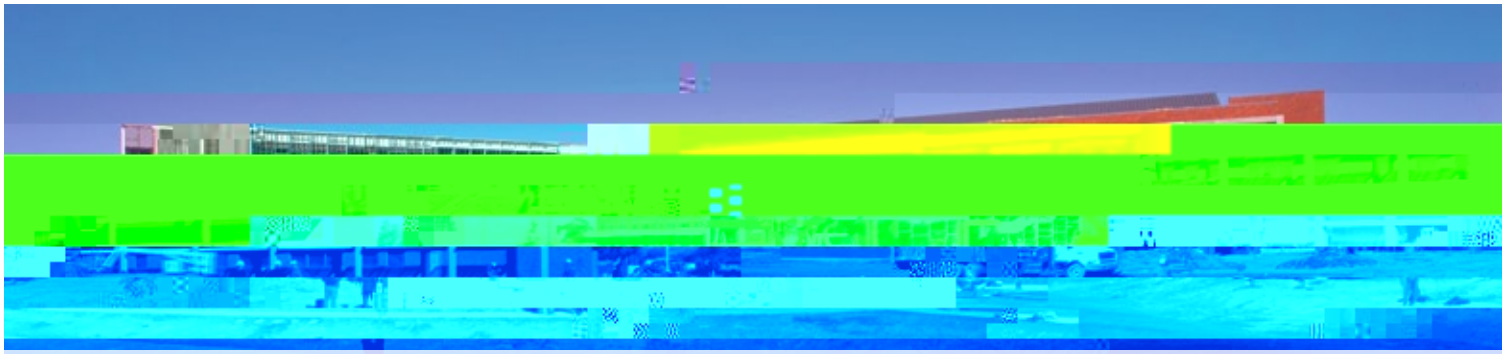
ARCHITECT CTA, Inc.

MECHANICAL ENGINEER CTA

ELECTRICAL ENGINEER CTA

DESIGN BUILD CONTRACTOR: Starr Corporation

External shading at south façade along east classroom wing



View from entrance looking north

of pursuing very energy conscious selections for various building components, but nothing of such a truly holistic energy ef ciency effort had been tackled prior to this project." This building sets a new level of expectation for design at the College, one that is high performance from the users' perspective as well as from an energy ef ciency perspective.

The Integrated Design Process

There are many aspects that transform a typical linear design process into an interactive and integrated design

of the college staff and students began to talk about the project being ‘green’. Discussions of the project shifted to it being LEED certi ed. In October 2007, there was commitment that the project would be LEED Certi ed with the hopes of reaching the Silver certi cation. By February 2008, there was commitment by all to try and achieve LEED Gold. This was an interesting development in the project because at the onset, 3rd party veri cation was not on the table. With this momentum, energy ef ciency goals were set and we were determined to keep pace with the Architecture 2030 Challenge.”

View of computer lab adjacent to main vertical circulation space

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Saving Tax Payer Dollars:

- Minimizing energy use and operating cost
  - Quality daylighting and integrated electric lighting controls
  - Architectural solar shading
  - Increased insulation and high performance glazing
  - Direct Digital Control system
  - Geothermal heat exchange system
  - Variable frequency drive fans and pumps
  - Water to water heat pumps
  - Demand control ventilation with heat recovery

Visual Comfort and Preference

- Use daylight as the primary light source
  - Use high oor to ceiling heights to increase window daylight penetration
  - Daylighting monitors through corridor into back side of classrooms
  - Light wells between oors provide daylighting to ground level
  - Minimized visual contrast with light colored interior nishes
  - Solar control at perimeter angled to block low angle sun and redirect it to the ceiling
- Supplement daylight with high performance electric lighting and controls
  - High ef ciency indirect lighting
  - Daylight sensing photo-controlled dimming and occupancy sensors

Thermal Comfort and Air Quality

- Reduce loads to allow alternative cooling systems
  - Building orientation elongated in east west axis
  - Glazing concentrated on North and South exposure with extensive shading at the south
  - Demand controlled ventilation
  - Optimized glazing speci cations to orientation
  - Utilized local 90° F (once used) geothermal campus water loop for heating

Water

- Minimize water consumption
  - Reduction of sod from typical campus practice, replaced with native and adaptive plantings
  - Parking areas feed heavily landscaped bio-swales and retention ponds
  - Irrigation water supplied is a municipal non-potable source
  - 34% potable water use reduction with low ow xtures (Under Baseline EPA 1992)
  - Worked with state plumbing code of cials to allow waterless urinals

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East wing corridor looking east, displayed during painting process with clearstory covered in plastic as well as classroom relights.