An 'elemental' piece of chemistry
Glass, aluminum and LED lights make up the new multipaneled sculpture in the Hach Hall chemistry building. Elements and molecular models were the inspiration for "elemental" by Seattle-based artist Norie Sato.

Tests gauge feasibility of mixing biomass with coal
On occasion over the next few weeks, university boilers will burn coal mixed with wood pellets or chips. It's part of a series of tests to determine the feasibility of burning coal-biomass blends to power the university.

External funding hits record
Iowa State attracted a record $388.2 million in grants, contracts, gifts and cooperative agreements during fiscal year 2010. That's 27 percent more than last year's record.

Where's Bob?
Do you know where university photographer Bob Elbert spotted this 70-plus-year-old plaque? Do you know which campus building initially was called the Service Building?

Rain dampens road work
Major road projects on and around campus have been slowed by weather, but should be open to traffic before fall classes resume Aug. 23.
An 'elemental' piece of chemistry

University Museums is installing a new public work of art by Seattle-based artist Norie Sato (pictured) in Hach Hall, the new chemistry building. Sato's piece is a large-scale environmental sculpture, titled "elemental." It's made from glass, aluminum and LED lights in multiple panels.

"Elemental" can be viewed from inside or outside the northwest area of Hach Hall, where it transitions from the interior lobby to the building's west entrance exterior. The pattern, structure and materials are inspired from elements and molecular models.

The sculpture was funded through the Iowa Art in State Buildings Project, which designates one-half of one percent of the cost of construction projects to works of public art. The piece joins University Museums' art on campus collection, one of the largest public art programs in the nation. Photo by Bob Elbert.
Tests to assess feasibility of mixing biomass and coal to power university

by Diana Pounds

Right about now, your university office is being partially heated, cooled and powered by wood pellets. The pellets, mixed with coal, are burning in two Iowa State boilers July 15 as part of a series of tests that utilities staff are conducting over several weeks.

The tests will help officials assess the feasibility of replacing some coal with biomass, which is considered a cleaner fuel source, says Jeff Witt, assistant director of utilities.

"We're doing this to see what other alternative energy sources are feasible," Witt said. "We'll be assessing both the environmental and economic impacts of using these sources."

This week's test involves a 10 percent pellet, 90 percent coal blend. Officials tested coal mixed with 5 percent wood pellets two weeks ago. The university has Iowa Department of Natural Resources' approval to try blends that include wood pellets or chips in quantities as high as 20 percent.

The tests may take up to three months. Initial tests involve burning the various coal-wood blends in 24-hour experiments.

Suppliers help fund tests

"We're looking to see how the materials handle, how we get it into the boilers, whether it plugs things up, that kind of thing," Witt said.
"Stack" tests come next and involve running blends through the boilers once again to test for air emissions.

All that testing would normally carry about a $65,000 price tag, Witt said. But the Rocky Mountain Pellet Co., Walden, Colo., and Nextgen Biofuels, Underwood, Iowa, are supplying the fuels (wood pellets and chips) at no cost. Iowa State will foot the estimated $23,000 bill for transportation costs and also will pay for all emissions testing.

**Beetle-decimated Colorado pines**

The wood for the experiments comes from Colorado pine trees ravaged by pine beetles. Some 3 million acres of trees in Colorado and southern Wyoming have fallen victim to the beetle, which has been eating through forests for more than a decade.

Adding wood as a fuel source would be more costly than sticking solely with coal, Witt said. At current prices, wood pellets or chips are approximately twice as expensive as coal.

"But we could do better on prices with a longer term contract," Witt said.

"There's a fair amount of interest in using more biomass and less coal," he added. "These tests will help us determine what we can do and what makes sense."

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Iowa State's external funding hits record $388.2 million in fiscal year 2010

by Mike Krapfl

Iowa State attracted a record $388.2 million in grants, contracts, gifts and cooperative agreements during fiscal year 2010, an increase of $83 million and 27 percent over last year's record.

This funding is in addition to the fiscal year 2010 state appropriation of $231 million for the university's day-to-day operations. Of the $388.2 million in external funding, $21.1 million was the result of competitive awards from the American Recovery and Reinvestment Act.

Iowa State's previous record for external funding was $305.2 million for the fiscal year that ended June 30, 2009.

"A second straight record in external support is truly an indication of the great work of Iowa State University's faculty, staff and students," said president Gregory Geoffroy. "This demonstrates that Iowa State has outstanding people who can successfully compete for the funds that support world-class research and scholarship. This success also demonstrates the exceptional capabilities of Iowa State for the transformational research and creativity that is required to meet the challenges of the 21st century."

What it supports

The external funding supports research across campus as well as educational projects, student financial aid, buildings, equipment and extension activities. It comes directly to Iowa State from federal, state and local government sources as well as from corporations, foundations and other universities.

Iowa State's largest single source of external funding is the U.S. Department of Energy. Iowa State attracted $59.3 million from the energy department this past fiscal year. The second highest source was the U.S. Department of Agriculture at $51.9 million. The third highest was the National Science Foundation at $46.8 million.

Of the $388.2 million total, $239.2 million was directed to research projects based on proposals submitted by Iowa State faculty and scientific staff.

"The significant increase in external funding this year is reflective of quality faculty, staff and students, and the competitiveness of their programs," said Sharron Quisenberry, vice president for research and economic development. "The research enterprise is extremely important to the university's future success, and faculty, staff and students are key to our ability to grow research programs that are competitive for extramural funding."

Sources

Iowa State's external funding came from the following sources during the fiscal year that ended June
### Federal

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### Grand Total

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Where's Bob?

University photographer Bob Elbert shot this historical marker in the first-floor hallway of Snedecor Hall. Originally the "Service Building," it was a federal Works Progress Administration project completed in 1939 to house an assortment of services, including mimeograph machines from Morrill, the Statistical Lab from Beardshear, WOI Radio from the Engineering Annex and the photo studio from Agricultural Hall. The building was renamed in 1969 for math professor George Snedecor, who taught the first statistics courses at Iowa State in 1915 and helped establish the Statistical Laboratory in 1933.
Rain dampens road work
by Erin Rosacker

June proved to be one of the wettest months on record in Iowa, slowing work on major road projects in and around campus. Barring further weather delays, both roads should be opened to traffic before the fall semester begins Aug. 23.

Morrill Road
The central campus stretch of Morrill Road (between Osborn and Union drives) was closed for reconstruction May 10.

Angie Solberg, landscape architect in facilities planning and management, said rain slowed progress on the Morrill Road project, but crews have been logging long hours and working weekends to recoup days lost to weather. Solberg said paving work on the main road began Tuesday, while work on sidewalks, parking stalls and lighting is scheduled to begin this week.

13th Street
If the weather cooperates, the city still plans to complete its 13th Street project by mid-August. That stretch of road reaches from Stange Road to Hyland Avenue.

Eric Cowles, construction supervisor for the project, said pavement work has begun on the westbound lanes and should be done within the next couple weeks. When those lanes are completed, traffic will be routed onto the newly paved westbound lanes while crews replace the eastbound lanes. Cowles said that part of the project is shorter by about 1,000 feet, which will allow the city to open up all four lanes on Stange. However, the intersection traffic lights will remain flashing red.

"We are a little behind, but it still should open by the time school starts," Cowles said.
Iowa Games in full swing July 16-18
by Anne Krapfl

July 16-18 is the primary competition weekend in the 24th annual summer Iowa Games, and many of those events will be held on campus or in and around Ames. Last year, two-thirds of the games' 15,500 summer athletes competed during this weekend. Organizers expect that with the growth of many sports, participation numbers will increase this year.

Over the course of the summer and at locations across the state, the summer Iowa Games will offer Olympic-style competitions in 41 individual and 13 team sports. The games are hosted by the nonprofit Iowa Sports Federation, Ames, an organization that helps develop amateur sports in Iowa and promotes physical fitness and a healthy lifestyle through athletic events and health education.

Getting started
The opening ceremony begins at 8 p.m. July 16 in Jack Trice Stadium. Bernie Saggau, former longtime executive director of the Iowa High School Athletic Association, will give the keynote talk. 2010 American Idol contestant Katelyn Epperly, a 2008 graduate of West Des Moines Valley High School, will sing the national anthem.

The opening ceremony will be preceded by "Finals Fest," free entertainment and games, beginning at 5 p.m. in lot B6 north of the stadium.

July 16-18 competitions
Campus venues this weekend include:

- Beyer Hall: fencing July 17; youth swimming July 17-18
- Cross-country course: cross-country races July 17
- Forker Building: badminton July 17; 5-on-5 basketball July 17-18; judo July 17
- ISU disc golf course: disc golf July 17-18
- Forker tennis courts: adult tennis July 17-18; youth tennis July 15-16
- Lied Center: basketball (shooting) July 17; 3-on-3 basketball July 17; racquetball July 16-18; table tennis July 17; taekwondo July 18; weightlifting July 18
- Maple Willow Larch intramural fields: archery July 17-18
- SE Athletic Complex: youth soccer July 16-18
- Towers fields: youth soccer July 16-18
- Veenker golf course: individual golf July 15 and 17; 4-person best shot July 18

Campus facilities served as the locale for two Iowa Games events July 10-11, the first weekend of the
games: cycling in the Iowa State Center lots and handball in Beyer Hall. And during the final weekend of the games, there will be dodgeball and ultimate (Frisbee football) at the Southeast Athletics Complex (July 24); figure skating at the Ames/ISU ice arena (July 24); flag football on the Maple Willow Larch fields (July 24-25); and adult soccer at the Towers fields (July 23-25).

Parking

ISU parking manager Mark Miller said no modifications are planned for central campus lots on Friday, July 16. The Lied Center will be a competition site but not until 5 p.m. Youth soccer games at the Towers and Southeast Athletics Complex locations during the day will impact parking in the free lots at the Iowa State Center, along South 16 Street ad east of the Towers residence halls, as well as the streets adjacent to those sites.