

New Colorado College library shoots for net zero carbon footprint

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Caption + The expansion underway Wednesday, February 16, 2017, at the Tutt Library on the Colorado College campus. Photo by Mark Reis, The Gazette

Two large construction projects destined to change the skyline of the Colorado College campus are about halfway completed and on track to advance 21st century learning and living come fall.

"We're down to a critical point, and with the great weather, you'll see things start to move really quickly," said Chris Coulter, director of facilities services for CC, a private liberal arts college north of downtown Colorado Springs.

A \$45 million renovation and expansion of Tutt Library, one of the oldest academic libraries in Colorado, started right after graduation last year and will be completed at the end of May, Coulter said. Demolition of Tutt South, a part of the library that has contained the college's rare book collection of some 2,000 volumes, will begin in early June.

"So when kids are back in August it'll look like a new library," Coulter said.

And an \$18 million cluster of new residential units at the corner of Uintah Street and Nevada Avenue will house 154 juniors and seniors and be completed in June, said Ted Heffernan, a superintendent with G.H. Phipps, the general contractor on both the library and the housing projects.

The property that takes up half a block east of the main campus will include five, three-story buildings with a combination of apartments, cottages and small housing units, a community center, a center courtyard that all buildings will face and 120 parking spaces.

Upperclassmen who in the past rented nearby apartments will live in the new complex, which CC spokeswoman Leslie Weddell said students have been asking for.

"It's a great compromise so students are not isolated and still have a sense of the community," she said.

Both projects are on a lickety-split schedule.

"We're flying," Coulter said.

The goal was to disrupt only one academic year with construction, said Mark Ferguson, campus operations and plant manager for CC.

The refurbished library, at 1021 N. Cascade Ave., is expanding up one story to five floors and out toward the west. The new entrance will face south.

The new construction boasts a contemporary style, which will offset the existing portion, said Stephanie Kingsnorth, a principal with Pfeiffer Partners Architects.

The building will feature a garden level with a window-walled reading room, an open atrium, a third-floor café, terraces on each level with views of Pikes Peak, all glass walls on the fourth floor, and plenty of individual and group study spaces.



Work underway Wednesday, February 16, 2017, on new student housing on the Colorado College campus. for
Photo by Mark Reis, The Gazette

"It will have all the things that go into a 21st century library for research, academia, casual use and café use," Coulter said.

Last week, a crane operator on the ground at the library hoisted heavy structural steel beams into place from instructions given over radio communication by workers on the third floor.

"We don't have a large yard to lay down steel, so they're bringing in pieces every day," Ferguson said.



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Photo by Mark Reis, The Gazette

The library, which was built in 1962 and designed by the same architect who did the Air Force Academy Chapel, will have ultimate energy efficiency - a net zero carbon footprint.

The 100,000-square-foot building will be powered by natural gas, instead of an electrical system, and heated by a geothermal field.

"We'll be making power and heat," Ferguson said. "We figured out how to lay the most efficient technologies on top of each other to maintain the building 90 percent of the time."

Eighty geothermal wells bored 400 feet deep on the campus quad will pipe water into the library building and recirculate it in a continuous loop, Ferguson said.

"In the winter, it's taking heat from the earth, and in the summer, it's putting heat back in," he said.

CC staff handled the mechanical design of the geothermal wells. The system will take the library beyond LEED-certified energy standards, Coulter said, and into efficiency territory that no other library in the nation has gone.



Looking from the third floor down to the second floor Wednesday, February 16, 2017, of a renovated portion of Tutt Library at Colorado College. Photo by Mark Reis, The Gazette

"We didn't find any other buildings of this size that are net zero. No one's really attempted it on this scale," Ferguson said. "It's very difficult."

The library's new terraces, open spaces, copious amounts of glass, coupled with the task of keeping the costs in check, make the goal of carbon neutrality challenging, Ferguson said.

The library, which is open to the public, is a popular spot, Weddell said. The college's Block Plan, in which students take one class for three-and-a-half week periods, means all students have finals at the same time and frequently need the library for research and studying, she said.

Some parts of the revamped library will be open 24 hours, Coulter said.



The expansion underway Wednesday, February 16, 2017, at the Tutt Library on the Colorado College campus. Photo by Mark Reis, The Gazette

There also will be enough technology and accessibility so that the school's 2,000 students each can use a handful of wireless devices without any problem.

Solar panels on the roofs of the library and the commons section of the new residential village will further improve building efficiency, Coulter said. The library also will have skylights and LED lighting.

Students have been studying and doing research in seven temporary trailers hooked together and dubbed the Mod Pod, and books are being stored in various locations until they can be consolidated when the new library opens.

The library project has been complex, officials say, and both the new housing and the library have taken massive effort to accelerate the construction.

"It's going to be exciting," Ferguson said.