

Greeley welcomes 3D house printer to community

 Ken Amundson



A technician describes how the 3D printer robot operates. Ken Amundson/BizWest

GREELEY — Alquist LLC, the startup company that will 3D print houses, starting in Greeley, expects to be so busy that it was willing to include a licensing agreement in its economic-development deal with the community so that Greeley could use the new technology on its own.

Local and state public officials gathered Friday in Greeley to welcome Alquist, a 3D-printing company that has developed technology to build concrete structures. The city and state have both agreed to participate in the company's relocation.

Alquist will leverage a \$4 million investment from Greeley and the state — **a deal that grants the city a collateral interest in the company's technology** and the ability to market it to contractors.

Zach Mannheimer, founder of the company, told BizWest after a public welcoming ceremony that details of the licensing agreement have yet to be finalized, but it will give Greeley an opportunity to provide licenses to homebuilders to use the technology without Alquist's direct involvement.

"We expect to be inundated with work, and we wanted the city to be able to implement the technology locally on its own," Mannheimer said. He said the company calendar is already "packed with work," and all along the company had wanted to franchise the technology to other companies and communities.

"At least a dozen (other Colorado communities) have reached out so far," he said.

Why the interest?

Using a large robotic 3D printer, which was running in the background as public and company officials spoke on Friday, communities can build homes from concrete "quicker, less expensively and of a higher quality," said Gov. Jared Polis in his remarks.

"Greeley is thinking outside the box to create housing," the governor said, referencing the campaign that his office has been mounting to build more affordable housing throughout the state.



Zach Mannheimer addresses a reception at Aims Community College Friday with the 3D robot demonstrating its moves outside. Ken Amundson/BizWest

Speaker after speaker — Mayor John Gates, Sen. Michael Bennet, City Manager Raymond Lee and more — directly linked the new company's location in Greeley to an effort to build more houses, more quickly and more inexpensively.

Alquist, formerly of Iowa City, Iowa, was attracted to Greeley because of multiple factors, not the least of which was the economic package offered by the city and the state. But what put Greeley over the top, Mannheimer said, was Aims Community College, which together with the company will develop a training program within the construction management curriculum for the next generation of users of the technology. Alquist or others using the technology will hire those workers. Alquist plans to

pay a newly certified 3D print operator \$70,000. Alquist will also work with the Aims' computer technology program to develop technicians who can build and program the robotic 3D printers.

"There is nowhere else on the planet where so much is happening all in one place to move structural 3D printing forward," Mannheimer said about Colorado and Greeley.

The deal that brought Alquist to Greeley includes:

- Colorado is providing a \$1,097,242 Job Growth Incentive Tax Credit over eight years for the creation of up to 79 net new jobs, as well as a Strategic Fund Incentive for \$335,000 over a five-year period for the creation of up to 67 net new jobs.
- Greeley is investing \$2.85 million. Greeley's funding includes an upfront forgivable loan, contingent on Alquist's relocation of its headquarters to the city and the company's commitment to stay at least five years. The city is also helping Alquist with \$100,000 of its relocation expenses. The largest portion of the city's incentive package, \$2 million, is tied to Alquist's purchase of equipment, staffing and construction in Greeley.

Alquist's relocation will be complete this fall, the company said. A production facility and showroom will be built east of downtown. Its first project will be printing concrete curb systems for the city of Greeley — curbs that won't require the metal drain cutouts that can be a point of failure for curb systems. The curbs will be printed at Aims Community College and trucked to installation sites, the company said.

The company also has a home-printing contract with Greeley-Weld Habitat for Humanity that will result in at least 100 homes in the 500-home Hope Springs project at 29th Avenue and 32nd Street between Greeley and Evans.

Mannheimer also committed to continued development of the technology, including a more carbon-negative 3D printing material. The material currently in use, he said, will reduce home energy costs by 50% and is more storm and fire resistant — an important consideration in a climate-changed world.