

On the cutting edge for care: Tulsa Cancer Institute design incorporates green, flexible features

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Chuck Tollefsen, developer of the Tulsa Cancer Institute, speaks to the crowd gathered for a groundbreaking ceremony Friday morning in Tulsa. (Rip Stell)

TULSA – The Tulsa Cancer Institute will incorporate a number of innovative “green” construction elements in its \$60 million headquarters, targeted for completion in 2013.

This group of 14 oncologists broke ground Friday for what developer Chuck Tollefsen called the state’s single largest medical facility raised by a group of private physicians. When finished, the Tulsa operation formally called Cancer Care Associates will consolidate its three offices into this 18-acre site just off the Broken Arrow Expressway at 121st and 51st streets.

Actual construction is not expected to begin until January, with different officials projecting 15 to 18 months for completion. Flintco Project Manager Andrew Witte said

the design team is working to finalize landscaping, equipment and building plans.

“The plan right now is to have those documents to issue for bids by the 15th of November,” he said.

The primary challenges reflect how the TCI team and the Phoenix office of Gensler Architects, designers of Devon’s Oklahoma City headquarters, will balance current and future infrastructure, treatment and care needs in this 86,000-square-foot facility on Creek Nation land.

“The building’s going to have to be flexible, so the floors can move, the walls can move, the electrical, data and plumbing infrastructure can move,” said Beth Harmon-Vaughan, principal of the Phoenix office. “The mechanical systems are even somewhat flexible, so that the infrastructure supports all this amazing equipment, and of course the amazing people that are actually delivering service. Even the skin of the building’s flexible.”

The concrete building will employ a lightweight, zinc-finished material for its exterior skin, said Jay Silverberg, director of design for Gensler’s Phoenix office. He said the movable, applied covering should allow TCI to easily adapt the exterior to keep pace with future needs in the rapidly evolving medical industry.

“It’s inherently designed with that in mind,” Silverberg said.

Movable prefabricated walls will divide interior spaces above an access flooring system. Witte compared that to the crawl space under a house, allowing Flintco and its subcontractors to lay heat, air, electrical and other utility systems in a flexible way under the floor, freeing overhead space for other uses.

Witte said many of these systems will be new to Tulsa construction workers.

“From a design standpoint, our architect’s very familiar with them, but as a construction industry here, we’re working to get there,” he said. “It will be a challenge getting the local trades and contractors accustomed to that type of construction.”

To improve the healing environment, Harmon-Vaughan said the building will boast an interior courtyard and three grassy roofs. These will lower the building's heating and cooling costs and reduce its energy radiance while providing comforting areas for patients, employees and visiting families.

"You can walk out on the decks and experience those, but you can also look out of the building and enjoy both the surrounding area," said Harmon-Vaughan. "Pretty much throughout the building you can look into the garden or outside the building."

It also boasts a natural lighting system.

"We have a whole series of skylights in the major treatment areas, so the building is intended, to the greatest extent that we can, to be flooded with natural light," said Harmon-Vaughan. "It's more healing. It's actually better for the medical staff to be able to assess what's the condition of this patient right now."

Throw in its high-efficiency lighting, air handling and water systems, plus three exterior ponds, and TCI will target the U.S. Green Building Council's LEED, or Leadership in Energy and Environmental Design, Silver, designation – one of the highest available.

"The air inside the facility will be cleaner than the fresh air outside," said Tollefsen, whose subsidiary Formaation LLC spearheaded the project, arranging construction funding using Bank of America, Tulsa's Industrial Authority Recovery Zone Bond and Federal New Market Tax Credits.

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