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Improvements Without Interruption



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In order for college administrators to recruit and retain the best and brightest students, they must provide a built environment where the students can thrive. Administrators at Georgia Institute of Technology (Georgia Tech), located in Atlanta, have made redevelopment of student housing a priority, as two thirds of the students elect to live in student housing (versus closer to one third at comparable universities) despite no mandate to do so and despite free rent being offered in surrounding apartment buildings. Georgia Tech continues to maintain 100 percent occupancy of its residential halls, whereas most universities are happy with 87 percent.

The continual improvement of any college campus, including residential building renovations, is a massive sustainability challenge for three reasons:

- How do you sustain the environment — reducing energy and water consumption while improving air and other quality of life?
- How do you sustain education — continuing to attract world-class students while not interrupting the studies of the ones already on campus?
- How do you help sustain the Institute economically — not interrupting the flow of tuition dollars by displacing students while maintaining an extraordinarily high residential housing occupancy rate, despite apartment rental rates around the campus tumbling in the wake of recession?

Georgia Tech recently tapped Winter Construction (Winter) to help answer these questions with the 2-year renovation of the Institute's Fitten, Freeman and Montag residence halls. The buildings are being completely renovated and elevator towers are being constructed to service the three buildings and improve accessibility. This is not new territory for Winter. Winter successfully completed a very similar renovation and elevator tower addition for Georgia Tech's Armstrong and Hefner residence halls in 2008.

Environment

One of the key components of the residence halls' renovation is the conversion from a two-pipe system - in which the entire building must be in either heating or cooling mode — to a four-pipe system. This allows the students control of their individual environments, which is their number one request. This conversion affords the Institute much greater efficiency — eliminating, for example, windows being opened to cool a room during a time in which heat is the only option. This and other improvements — new carpets, walls, plumbing, shower areas, kitchens and more — will all be completed on the campus standard of LEED Gold, reusing materials wherever possible and sending as little as possible to landfills.

It was important for Winter to form a strong relationship with the campus space and planning team early on in the project. With Georgia Tech's help, the project team took protective steps (such as covering the roots of the trees) to ensure construction did not interfere with campus vegetation.

Education

It is crucial for Winter to work with Georgia Tech — which funds the renovations via departmental reserves, surplus and/or bonding, but no State of Georgia money — to meet schedules that seamlessly shift students within Institute housing. It is equally important to retaining those students that they are able to navigate construction areas safely and without great inconvenience. Unfortunately, summer provides no relief to the challenge, as the campus population is maintained with the addition of camp participants.

Communication is key in keeping the students as well as the faculty comfortable with the construction occurring around them. Winter's superintendent Robert Blake has his finger on the pulse of Georgia Tech's many groups, including parking, sports, special events and needs, transportation, physical plant personnel and executive level management, to assure smooth execution of all construction activities. Winter also manages a website that provides daily construction updates.

Economics

Georgia Tech facilitates shifting students away from housing that is being renovated (typically two buildings at a time) while still accommodating them on campus. Within this delicate balance, it is critical for Winter's work to remain on schedule to ensure that no students are ever displaced. Georgia Tech's financial stewardship of the Institution depends on its ability not to interrupt its streams of revenue from students.

Winter focuses on getting in and out as quickly as possible, while maintaining a superior quality of work. Having an established project superintendent, along with trustworthy subcontractors, keeps the project on schedule and on budget.

The focus on sustainability must be threefold: economic, environmental and social. An environmentally focused renovation that fails to contribute to the Institute's ability to sustain itself long-term is not truly sustainable. The key to that economic sustainability through a renovation is successfully adhering to a schedule and, in turn, a budget.

— Frank Wartner is project executive with Winter Construction, which provides commercial, industrial and institutional construction management and general contracting services throughout the Southeast.