

# Georgia Institute of Technology Crosland Library East Commons

*Convia gives students and staff complete freedom.*

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Convia™ is a modular electrical and data infrastructure for buildings that eliminates much of the hardwiring required with traditional electrical systems by delivering plug-and-play power to virtually anywhere within the space. All Convia components are programmable, which allows users to instantly—and simply—create associations between any electrical device, switch, or sensor on the system via a hand-held wand.

[1<sup>st</sup> page abstract]

The East Commons of the Crosland Library at the Georgia Institute of Technology is transforming the experience of the library and the services it offers. The space, an 8000 square foot area, includes study and research areas, presentation areas, and a café. It is completely serviced by the Convia system and takes full advantage of the flexibility and simplicity that Convia's programmable modularity offers.

[full case study]

In 2001, Georgia Tech was formulating plans for a facility that would become the gateway building for freshman. It would house classes, support services, social areas—and a library would be a prominent component of this gateway. Crit Stuart, Associate Director for Public Services within the library system, proposed a revamping of an existing library space as the first step to creating this gateway. He referred to this space as a productivity zone that went well beyond traditional library/information commons. "We wanted to create a place of community, that offered services and social opportunities, and that developed a sense of place far different than current library experiences," explains Stuart.

Two critical pieces led to the vision of the East Commons. The first was student input. Stuart convened a diverse group of students who shared their ideas of an ideal library space. Connections became a common thread. Students wanted an open environment in which they could be energized by the voices and movements of people around them. They didn't want a place that walled off or segregated students from one another. Students also wanted to be connected to the outdoors, to daylight and evening. Finally, students expressed the need for connection to the ideas and work of the larger campus community, to feel a part of the collective research of students and faculty.

The second was Convia. Stuart and team were introduced to Convia through a local architect who had installed the product in his offices. The next step was a trip to see Convia. Recalls Stuart: "Looking at Convia required some imagination—it was so different than traditional electrical systems. But it was versatile, and I could see it had more to offer than only lighting. Space division, placemaking, easy transition, and suspension of data-dependent appliances were all there." And it was the answer for responding to the students' wishes.

## **Beyond the limitations of traditional electrical systems**

The Convia installation within the East Commons is a sophisticated one, but not a complicated one. Each light fixture, of which there are nearly 100, has its own connector, so each can be individually controlled. Compare this to a traditional wiring system, where every fixture would have its own switch. That type of system would be functionally nonsensical and cost prohibitive. With this system, any number of light fixtures—whether 100 or 20 or 5—can be controlled by one switch or by 20 switches—it's completely flexible. "We have the ability to transform space continually without constraint," says Stuart.

"Georgia Tech has truly embraced what Convia offers," says Jennifer Magnolfi, architectural engineering project manager with Convia. "They have statically programmed some of the high-priority controls," she explains, "but they also keep the system very granular for impromptu, on-the-fly changes." A student can request some sort of change during the day to set up a presentation or request an outlet change to

accommodate a computer in a different location. “The users—in this case, the students—are completely engaged with the Convia system.”

The ease with which on-the-fly changes can be made—it takes just a few minutes to reprogram something—supports the receptivity to making them. “The frequency of change would have been impossible with a traditional electrical wiring scenario,” says Jennifer. “Or students would have had to put up with poor lighting for a number of activities.” And best of all, says Stuart, the library experience is customized from the student’s point of view.

### **Local control for customized environments**

And customized simply, with the assistance of two library staff members. No electricians are required to make the daily lighting and technology changes. Two concierges, as Georgia Tech calls these library staffers, are housed in the Commons to assist with Convia. “We’re stage directors,” says Stuart. “We continue to experiment with programming. “We’re moving light fixtures about, we’re adjusting the intensity of the lights, and we have both daytime lighting and nighttime lighting.”

The fatal error of library planning, according to Stuart, is that library directors tend to “build ourselves into a corner” by assigning specific uses for specific areas and building only to them. With Convia, Georgia Tech has built itself out of a corner. “We are not confined or constrained in the future by what we decide to do with our utility infrastructure today. We aren’t locked into an early decision that we can’t change later.”

Flexibility extends to more than the lighting within the East Commons. The entire space is designed for user control and change. There are no fixed walls, for example. “We didn’t want to make the mistake of literally walling ourselves into something rigid and expensive to undo,” says Stuart. Instead, placemaking elements in the form of fabric walls hang from Convia and divide the space. The fabric walls can be easily be moved along the Convia rails, as well. Herman Miller’s Resolve® system provides individual computer workstations and creates divisions of space with its screens and rolling canopies. Tables and work chairs are mobile, so students can move them as needed. Power and data can be moved anywhere within the Convia structure, so setting up presentations, relocating plasma screens, or plugging in a laptop is simple.

The connections to the Georgia Tech community are made in part through wall displays of student art and research. “We make a point to showcase the best of research and the award winners at Georgia Tech,” says Stuart. Convia has become a conduit for creating a dynamic display area that keeps students apprised of and celebrates the work going on throughout the campus.

The space has also become a place for refreshing the mind and body, as students expressed during the planning sessions. Sofas, lounge chairs, and a café contribute to a relaxed environment—and provide places of rest. The lighting also brings energy and stimulation to the space.

With the help of Convia, the people who occupy the library give meaning “to the moment and the space,” says Stuart. “Students care a great deal about ambiance,” he continues. In this space, they directly influence that ambiance.

### **Immediate and long-term cost benefits**

Convia’s cost benefits weren’t the primary reason Georgia Tech chose the product, but the school will be realizing financial advantages immediately and into the future.

Initial costs are comparable to traditional systems, but even as early as installation, differences between traditional systems and Convia become clear. Frank Lamia, construction program manager with the facilities department at Georgia Tech, discovered pleasantly how straightforward Convia was to install. In fact, part of the product’s design actually cut out some of the installation work. “Convia is a system that was designed to fit together. There’s not a lot of field cutting of pieces. In that sense, it is easier to install because it’s already been engineered, and you don’t have to reinvent something on the job.”

Convia delivers a more energy efficient system when compared with a traditional electrical system. Dual and hierarchical switching are delivered at no extra cost. Ambient light sensors, shade control, and load shedding technologies are also delivered at no extra cost. In fact, the energy efficiencies of Convia carry over into eligibility for federal energy tax credits.

With Convia, Georgia Tech gets unlimited flexibility without additional cost. "As owners, we're going to save a lot of money churning and turning the space into something else," says Lamia. Without requiring electricians to reconfigure fixtures, data, or power, Convia can be changed easily and often with the assistance of library personnel. "It's really a benefit to an owner not to make a construction project out of simple changes. It's going to save the institute a lot of money in the long run."

Because Convia is a modular electrical system, Georgia Tech will benefit from a faster depreciation schedule—seven years instead of 30.

### **Systemic sustainability**

Sustainability has as much to do with longevity as it does with environmental responsibility. When products continue to add value and provide use, their impact on the environment is minimal. In the same way, materials and manufacturing methods also impact the environment. Convia components are 100 percent reusable, extending its long-term use and value—and keeping it out of the landfill waste stream. A substantial percentage of Convia's contents are comprised of post-consumer recycled content.

The East Commons is also a place that offers "refreshment for the mind and body." Sustaining the physical and emotional well-being of students, who may spend marathon hours in intense study, is essential to the mission of the space. Stuart refers to the Commons as a place that provides "recess in the library," a place that will refresh, re-energize, and stimulate.

The popularity of the space is proof of its success in meeting its goals. What Convia delivers is central to this success. The light quality, the continuous flexibility to meet exactly the needs of the students, the stimulation of changing colors, and the movement of curved fabric space dividers all help to create a highly functional, flexible, and enjoyable space.

"Anybody who is smart is thinking about utility flexibility," says Stuart. The East Commons might be the smartest library that exists today.