

# Georgia Institute of Technology

## Energy Savings Performance Contract



Improved STEM lab ventilation and fume hood controls are guaranteed to save \$11.7 million in energy and operating costs for Georgia Tech.

### CHALLENGE

The Georgia Institute of Technology (Georgia Tech) discovered that 5% of their campus square footage was driving nearly 30% of their campus energy use. Identifying laboratory space as intensive energy consumers, Georgia Tech facility engineers investigated methods for cutting lab space energy cost, reducing their carbon footprints, and providing safer, more reliable working environments for researchers.

U.A. Whitaker Biomedical  
 Engineering Building

Ford Environmental Science  
 & Technology Building

“This project required a high level of coordination among a wide range of stakeholders to balance safety, functionality and efficiency while conforming to a very tight design and construction schedule. The ABM team completed construction ahead of schedule and the project has helped reduce energy usage.”

— **Greg Spiro**,  
 Senior Mechanical  
 Engineer, Design and  
 Construction, The Georgia  
 Institute of Technology

## SOLUTION

An energy savings performance contract from ABM provided the combined technical and financial solution needed to upgrade fume hood controls for more than 140 lab spaces without upfront costs.

For fiscal year 2020, the project reduced energy use by 73.7% and 52.7% respectively for the ES&T and UA Whitaker science buildings from the measured baseline, surpassing the guaranteed utility cost savings for that period with an additional cost reduction of \$173,167.

**Safer and More Sustainable:** New safety control devices for fume hoods and snorkels helped improve the cost-effectiveness of proper ventilation and empower reliability. Real-time data now alerts an on-site technician ready to respond to performance issues that endanger airflow and could result in expensive lab downtime. Collected data also informs the preventative maintenance needed to optimize performance and mitigate the risk of airflow issues.

**Prioritizing Lab Uptime:** Updating critical ventilation assets for more than 140 lab spaces required careful coordination with approximately 100 different research teams. To help minimize impact on millions of dollars of ongoing research, ABM project leaders worked closely with Georgia Tech leadership, Environmental Health and Safety, lab safety officers, and research team contacts. With a proactive communication plan in place, ABM met the commitment to complete work in each lab space in under a week.

**Proven Expertise and Self-Performance:** To meet a strict timeline, project development had to fit entirely within a four-month window. ABM completed the engineering and development schedule for more than 140 labs while simultaneously completing construction in 4 labs to test and verify the solution. ABM then self-performed control installations and commissioning for the remaining 136 labs within the rigid 13-month project schedule.

## BENEFITS

ABM's Energy Performance Contracting Program enables investment in sustainability goals and reliably healthier, safer, and productive spaces by helping to drive costs out of facility operating budgets which can then redirect savings to critical facility needs.

In addition to guaranteed savings of \$11.7 million over a ten-year period, the project helped provide:

- Safer and more reliable research environments
- Opportunities to address deferred maintenance and existing problems
- Air pressure issues and excessive air exchange rates
- Temperature extremes
- Significant gains in sustainability goals
- Reduced carbon footprint
- Energy-efficient lab spaces
- On-site, ongoing technical support and preventive maintenance



ABM delivered savings and sustainability to the Georgia Institute of Technology.

Find out how we can make it possible for you by calling **866.624.1520** or visiting **ABM.com**.