Georgia Institute of Technology  
Atlanta, Georgia  
Habitat  
Tree Campus USA

SCHOOL  
The Georgia Institute of Technology is one of the nation's top research universities, distinguished by its commitment to improving the human condition through advanced science and technology. Georgia Tech's campus occupies 400 acres in the heart of the city of Atlanta, Georgia where 20,000 undergraduate and graduate students receive a focused, technologically based education.

Accredited by the Southern Association of Colleges and Schools (SACS)*, as a 4 year college, the Institute offers many nationally recognized, top-ranked programs. Undergraduate and graduate degrees are offered in the Colleges of Architecture, Computing, Engineering, Management, Sciences, and the Ivan Allen College of Liberal Arts. Georgia Tech is consistently ranked in *U.S. News & World Report*'s top ten public universities in the United States.

ABSTRACT  
Georgia Tech is an urban university located in downtown Atlanta. It was one of the first ten Tree Campus USA campuses. It has been named a Tree Campus USA for the second consecutive year. It has completed 13 reforestation projects on its 400 acre main campus since 2006. Georgia Tech has a Landscape Master Plan and a Georgia Tech Campus Tree Care Plan.

GOALS AND OUTCOMES  
Goals  
The purposes of the Campus Tree Care Plan are to:

- Facilitate the achievement of 55% tree canopy on campus as recommended by the 2006 Campus Landscape Master Plan.
- Facilitate the achievement of 22% woodlands coverage on campus as recommended by the 2006 Campus Landscape Master Plan.
- Protect and maintain the campus urban forest by managing the impact of development and construction on campus trees.
- Provide protection and to make sure that removal of all trees on campus are conducted with proper consideration and adequate replacement program, according to our approved 2006 Campus Landscape Master Plan.

The 2004 Campus Master Plan Update recommends that the campus reduce its stormwater footprint to what it was in 1950, by reducing the amount of stormwater runoff entering the Atlanta Sewer System by 50 percent of the 2004 levels. It requires the establishment of the Eco-Commons; a permanent open space in the heart of campus for stormwater management and outdoor recreation. Other requirements include:

- Reconstruct and conditioning of soil to increase infiltration rate and storage capacity, recharge ground water supplies and reinvigorate pre-existing natural drainage systems of the campus,
• Treat stormwater as a valuable resource; including harvesting it for irrigation and flushing toilets, replacing existing management systems which funnel stormwater into pipes with systems that bring water into contact with the soil.

Trees are very effective in purifying the air we breathe by absorbing CO2 and releasing oxygen, cooling effect during the summer months and reducing the amount of stormwater runoff into the city storm drains by absorbing large quantities, intercepting the rain energy with the leaves, branches, and trunk and also preventing soil erosion with the root systems and the leaf drops forming protective lays.

Accomplishments and Outcomes
The Arbor Day Foundation designated Tech a Tree Campus USA on Nov. 18, 2008. Tech is the 10th institution awarded this distinction for best practices in campus forestry, and is the first in the state of Georgia. The Landscape Department within Facilities at Georgia Tech works to not only maintain and replace, but also increase the roughly 7,023 trees across Tech’s campus in 2009.

To achieve the goals set in the 2006 Campus Landscape Master Plan, Facilities established the Institute’s Campus Tree Care Plan in September 2008. The Tree Campus USA Committee membership overseeing this plan is comprised of students, area neighborhood representatives and members across several Institute departments—Facilities, Housing, Capital Planning and Space Management, GTRI, Parking and Transportation, the Center for Geographical Information Systems and the School of Biology.

Challenges and Responses
Georgia Tech has doubled the square footage of buildings on campus in the last 15 years. Sustainable design, construction, and operations have been a vital part of this growth along with other integrated sustainability factors. Utilities have been moved on campus. There is much disruption but there is also great commitment to sustainability. Trees have been saved and transplanted to new locations. Reforestation pilot projects have been implemented. The Landscaping Department created a new forest on campus by planting over 2000 trees using intensive planting techniques, with nature determining which trees thrive and which do not, as would happen in a natural forest.

Georgia and the Southeast recently had a four year long drought considered to be the worst in 100+ years, and are located in a nonattainment air quality zone in downtown Atlanta. Using Xeriscaping, native plants, and reclaimed condensate and cistern water (which had to be applied manually under drought regulations), the landscaping staff was able to save most of the campus’ 100+ year old trees and many young trees on campus. Gator and Ooze bags were used to water the newly planted trees during the first year of planting. After the first year, the trees survived on rainwater, which was supplemented by reclaimed condensate watering during the drought.

The 2004 campus tree inventory as indicated in the 2006 Campus Landscape Master Plan was 5000 trees and the tree canopy coverage was 15-18 percent. In 2008 and 2009, there were about 6,700 and 7,023 trees respectively on Georgia Tech campus providing approximately 33.8 percent of tree canopy in 2008. This shows strong progress toward the goal of the Landscape Master Plan in obtaining a minimum of 55 percent tree canopy in order to achieve the sustainability benefits to campus hydrology, micro-climate, carbon storage, biodiversity, and air quality.

Campus Climate Action: Your School’s Carbon Footprint
Georgia Tech has taken many steps over the last decade to reduce its carbon footprint with work expected to continue for many years. Georgia Tech’s urban forestry efforts are a pleasure to live among, a showcase for the rest of the city, and a beautiful green oasis.
recycles 98 percent of all the grass clippings, 80 percent of all wood products, 97 percent of leaf drops and about 25 percent of pruning products from shrubs on campus.

**Commentary and Reflection**
Long a leader in energy and water efficiency, Georgia Tech is a leader in sustainability. Our efforts in water and energy conservation have been nationally recognized. Our use of landscaping and hydrological performance has helped transition and unite the campus components that span over 135 years of growth.

**ENGAGEMENT AND SUPPORT**
**Leaders and Supporters**

The Campus Tree Advisory Committee is composed of:

- Hyacinth Ide, Facilities Landscape Manager
- Anne Boykin Smith, Master Planner, Capital Planning & Space Management
- Jerry Young, Landscape Project Manager, Facilities Design & Construction
- Byron Amos, Vine City Neighborhood
- Dr. Gerald Pullman, Professor, School of Biology
- George Roberts, Construction Foreperson, Landscape Services
- Michael Walsh, Horticulturist II, Certified Arborist, Landscape Services
- Ellis Kirby, Director of GTRI Support Services
- Joseph Goodman, GTRI Research Engineer
- Dr. Ann Schmierer, Home Park Representative
- Brett Testa, Horticulturist I, Certified Arborist, Landscape Services
- Donna Chronic, Horticulturist II, Landscape Services
- Ed Lanz, Project Superintendent, Georgia Certified Landscape Professional, Housing Department
- Paul Thurner, Home Park Neighborhood
- Marcia Kinstler, Director of Sustainability, Georgia Tech
- Brent Beamon, Arborist from the City of Atlanta
- Ritchie Brown, Senior Facilities Manager, Parking & Transportation, Georgia Tech
- Drew Getty, Kristie Champion, Deanna Murphy, Jason Vargo, Rahn Austin, Joseph Staubes, Yi Lin Pei, Tara Bryant, Caroline Keilhauer, Clara Gilbert, Rebecca Gray, Christina Carroll - Student representatives (during the academic year August 2008 – June 2010)

**Funding and Resources**
Tree Campus USA at Georgia Tech has been funded through Facilities, donations, and partnerships with the Arbor Foundation.

**Education and Community Outreach**
Students are engaged on the Tree Campus USA committee. They also participate in Earth Day and Tech Beautification Day each year. In April of every year, over 500 students, faculty, staff and neighboring communities help to beautify the campus by planting trees, shrubs, flowers, spreading pine straw and picking up trash as part of Tech Beautification Day projects. Students also contributed a NWF Arbor Day video in 2010 which was one of the three semifinalist videos entered into the final voting competition online. Georgia Tech is among the six institutions selected by Arbor Day Foundation and Toyota to host the Tree Campus USA 2010 tree planting event on November 6, 2010 in selected sites on campus. This
student led award will assist Georgia Tech in our quest to attain the 55% minimum tree canopy goal as prescribed in the Campus Landscape Master Plan.

**Georgia Tech Campus Tree Care Plan** [http://www.facilities.gatech.edu/tree_campus_usa.pdf](http://www.facilities.gatech.edu/tree_campus_usa.pdf)

**Georgia Tech Landscape Master Plan** [http://space.gatech.edu/landscapeplan/](http://space.gatech.edu/landscapeplan/)

**National Wildlife Federation’s Campus Ecology Program**
Georgia Tech students won the 2010 NWF National Chill Out Video competition.

**CONTACT INFORMATION**
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