

**FOR IMMEDIATE RELEASE**

**GWINNETT TECH HORTICULTURE PROGRAM INSTALLS ENVIRONMENTALLY PROGRESSIVE GREEN ROOF DISPLAY**

(Lawrenceville, GA) – Gwinnett Technical College' Environmental Horticulture Department announces a new educational Green Roof exhibit on campus. Designed and planted by students, the installation demonstrates some of the numerous benefits green roofs offer towards short and long-term protection of the environment. These benefits are particularly important to a burgeoning metropolis like Atlanta and the surrounding vicinities.

A green roof is an organized, sustainable rooftop system that typically incorporates drought tolerant plants with soil growing medium, a drainage layer and a waterproofing membrane. While green roofs have been in existence for millennia – think of the Hanging Gardens of Babylon - it is just in the last century or so that green roofs have been adopted more widely.

"Gwinnett Tech is pleased to be among the first area colleges to incorporate green roof strategies in our curriculum. By exposing our horticulture students and the faculty, staff and general student population to the green roof concept, we are helping to build popularity of this important environmental strategy," said Dr. Richard Ludwig, head of the school's Environmental Horticulture Department.

The growing popularity of green roofs is not driven by aesthetics so much as it is driven by practicality. Although green roof applications may bring a stare of two from the neighbors, property owners who have them will experience many benefits. Lower energy bills are one of the main cost-benefits. Normal rooftop temperatures in summer increase by as much as 100% or more during the day as compared to night. This fluctuation hits the property owner's wallet in the form of high energy bills. According to field research, green roofs stabilize roof top temperatures and, consequently, heating and air bills. On a macro-level, green roofs help reduce consumption of electricity and natural gas to maintain comfortable indoor temperatures. The external noise reduction, extended roof life and creation of wildlife habitats are some of the additional benefits green roof owners enjoy in their private environments. There are also extended benefits that impact the surrounding community and macro-environments as well.

Green roofs prevent excess storm water from entering and taxing sewer systems. Rainwater retention statistics vary across green roof test sites, yet researchers seem to concur that green roofs return more rainwater to the environment than they deliver to municipal sewer systems. Earth Pledge Foundation in New York City estimates that 75% of rainwater is absorbed and retained by the green roof.

In addition to mitigating the burden on municipal infrastructures of excess storm water, green roof transpiration processes cleanse the surrounding air by absorbing carbon dioxide and replacing it with oxygen. This reduces heat island effect and can help major cities to combat EPA air quality regulatory fines.

There are a few high-profile green roof examples around Atlanta, most notably Atlanta City Hall and Zoo Atlanta. Applications can be very different depending on the types of plants used and whether the green roof is intended for additional uses, such as recreational gardens. The degree

of benefit to property owners and the surrounding environment is dependent on the amount and types of plant matter.

The Gwinnett Tech green roof combines several varieties of *Sedums* with *Delosperma* and *Talinum* in what is termed an extensive green roof. Extensive green roofs typically are designed to fully cover the area with low-growing plant matter and are not designed with public access in mind. Intensive green roofs, by contrast, generally incorporate large plants, require greater depths of soil, and generally create spaces for public use.

Extensive green roofs are generally started with plant plugs, tiny specimens that grow quickly and form complete ground covers with in a season or two. The Gwinnett Tech green roof is 160 square feet and uses about one plant plug per square foot. The planting design specified in the Gwinnett Tech application looks sparse today they will begin to look lush next spring and will likely be completely grown in by next fall. All plants used were donated to Gwinnett Tech by Ed Snodgrass from Emory Knoll Farms, located in Street, Maryland. Emory Knoll Farms is widely recognized among green roofers as having the vastest selection of plants appropriate for green roof applications.

The green roof project was assigned to an Environmental Horticulture student working on her Landscape Design Internship program. Ms. Conrad has a particular interest in water conservation techniques for horticultural application. Conrad developed the planting design and coordinated project management.

"We have storm water and waste water problems in Atlanta which the city is in the process of correcting," says Conrad. "We also have serious air quality concerns. Considering the robust commercial and residential development growth we continue to face, proactive measures which compliment our environmental and infrastructure improvements will help to protect our improvement investments and ensure that they are not obsolete in our lifetimes. Green roofs are one such measure."

The Gwinnett Tech green roof is located at the outdoor pavilion between campus Buildings 100 and 600. It is open to the public for viewing during daylight hours.

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