water sense
WATER MANAGEMENT SOLUTIONS
WINTER 2010

Georgia Tech.....LEEDing the Way

Four years ago I was tasked by our Housing Facilities Director, Fran Gillis, to analyze the irrigation system and discover ways to save water. Calsense was the product that best met our needs after researching all the major companies. Tom Shannon with Ewing Irrigation and Dave Rippe, the local Calsense Field Technician, helped set up a test site at the Crecine Residence Hall. Moisture sensors were used for wet areas, along with an ET gauge and rain bucket to monitor the weather. Listening to feedback, Calsense upgraded the ET2000e controller's software to accommodate a freeze sensor. The test succeeded because it worked and everyone liked the product.

Ed Lanz, Housing Landscape Manager, operates the Calsense Central Control system which has expanded to other areas. First thing in the morning a daily check is done and a report is generated on the irrigation system. Problems are identified and repairs are done quickly. A few years ago all irrigation systems were located by GPS, all the way down to the head locations. The Alerts Report describes the problem and the area zone or building location. A technician can go directly to that area realizing increased savings in reduced downtime.

The system shows the actual GPM (gallons per minute) each zone is using and

Steven R. Zwirz (Project Supt., Engineering & Planning) LEFT
Ed Lanz, (Housing Landscape Manager) RIGHT

the amperage going to that valve. Flow parameters are set to allow two or three zones to run at the same time thus shortening water windows. Using weather data provides for a way to apply water more efficiently. The system doesn't run during rain showers, and monthly reports are generated to show actual water usage against a water volume budget. The overall water savings has been fantastic, nearly 30- 40% since installing the system. All of this has made it easier to take care of other departmental responsibilities.

GA Tech students are savvy on all energy saving technology and when they see it work, saving money and water, they're happy! The Calsense system is being designed for a 2,000 bed complex, the North Avenue Apartments. The North Avenue Complex is going for Gold LEED EB Certification. The benefits of the system will add two points towards Gold Certification for water conservation. Calsense can run utilities, so exterior lighting will be operated from the desktop computer as well.

Georgia Tech is looking into alternative ways of collecting water. One way is reusing water from mechanical systems, roof collections, and parking decks, putting them into cisterns, and then having irrigation operate off the cisterns. The Calsense controller offers a custom switch output which potentially will be used with a new sonar monitoring system for cisterns. It is something that we are looking into because of the increase of water prices. We're probably one of the largest water users in the city of Atlanta so it's important to look for alternative ways to irrigate.

Prior to Calsense, 329,000 gallons of water was used for the month of July at the Hemphill Building. In July of 2009, 95,000 gallons was used so the savings is directly tied to the Calsense System. Calsense is a Water Management System that works!

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