

SHOP TALK

*From the Physical Plant Division of the University of Florida
www.ppd.ufl.edu*

Mission Statement:

We create and maintain facilities for the university community.

UF's Underground Is Overcrowded

The University of Florida campus is full of aesthetic charm for its students, staff and faculty, with well-manicured lawns, finely landscaped common areas, and sweeping greenspaces. Visitors often comment on the natural beauty of the campus, mentioning features such as the huge oak trees and dignified red brick architecture.

The striking, meticulously cared-for landscape, however, belies the jumble of activity going on beneath its surface. Just a few



An excavation near the Reitz Union reveals underground telecommunications lines. The old manhole in this spot is being replaced, as it had become too small to effectively service the constant growth of the utilities network in the area.

feet underground, unseen by all but a few sets of eyes, lies a massive hodge-podge of cables, pipes, wires, telephone lines and conduits forming the gigantic utilities infrastructure necessary to service the University of Florida.

Two individuals who know this underground network well are Nick Florentine and Erick Smith. Florentine, UF Physical Plant's Utilities Planner, is responsible for analyzing and recommending improvements and changes to the campus utilities infrastructure as new buildings come online across the University. Smith, PPD's Urban Forester, is responsible for working to protect the established trees and plant life from their inevitable clashes with that same, ever-growing infrastructure.

"The utilities network situation we currently deal with on campus is not something that was originally master-planned," said Smith. "It's something that was inherited over the years as the University grew. In the beginning, out here, there was so much open space and so few restrictions that contractors and utility companies were able to lay ground lines anywhere they liked. But as time passed, and the available space on campus dwindled, things started becoming more and more crowded and jumbled together, to the point that now, there are very, very few areas on campus that are not saturated with underground utilities infra-

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PPD 2006 Employee Of The Year

Bill Munden, a maintenance mechanic at the Health Science Center's Machinery Shop, has been chosen as Physical Plant's 2006 Divisional Employee of the Year.

Maintenance Supervisor Tommy Black said, "Overall, Bill's daily work speaks for itself. He's a self-starter and willing to tackle any problem that might arise. I know that I can depend on him to do things to the best of his abilities and pick up the slack wherever necessary in our department. He's just a really good, dependable employee, and one of the best we have out here at Physical Plant."

HSC Interim Assistant Director John Lawson added, "Bill is a positive, outgoing individual, and we are fortunate to have a mechanic of his caliber working within PPD."



PPD Director Dave O'Brien (left) and 2006 Employee of the Year Bill Munden

UF Physical Plant Hosts 2nd Annual FLAPPA Conference

On March 2-3, 2006, the Florida chapter of the Association of Higher Education Facilities Officers (FLAPPA) held its second annual Educational Conference at the Hilton University of Florida Conference Center in Gainesville. The conference was themed "Ownership In Action" and was attended by over 125 representatives from Florida institutions of higher learning.

Host Committee Chair Allan Preston, of UF Physical Plant, said, "The conference went very smoothly, and we received numerous compliments on the quality and quantity of educational choices. It was also a great opportunity to show off UF's facilities, with our social held at the Harn Museum, and speakers that included Vice President of Administrative Affairs Ed Poppell, Director of Sustainability Dedee DeLongpre, and Dr. Thomas Emmel, Professor and Curator of the McGuire Center."

FLAPPA was created in 2004 as a state chapter of the worldwide Association of Higher Education Facilities Officers (APPA). Preston said, "Our parent organization, APPA, targets officers of higher education, while FLAPPA targets operation staff: the



The conference featured presentations and displays from many of FLAPPA's business partners and vendors.

hands-on folks that make our institutions shine. FLAPPA was created to foster mutually supportive objectives among Florida higher educational facilities organizations, and to promote relationships that provide personal and professional development through leadership, educational, and networking opportunities for all facilities personnel. The Annual Conference is a major part of those efforts."

Other members of the Conference Host Committee included UF PPD employees Pam Walker, Donna Agerton, and Brenda Wright. UF PPD's Linda Andrews, Dolly Warner, and Christina Hopper also assisted with registration of conference attendees.

The 3rd Annual FLAPPA Educational Conference is scheduled to be held at Palm Beach Atlantic University on March 7-9, 2007.



Don McElvain, of the University of Central Florida, speaks to conference attendees about the future of physical plant services.

Scrub Garden Demonstrates Sustainable Landscaping

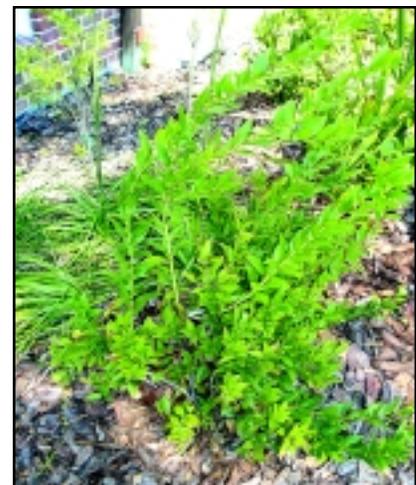
"One of the major issues that landscapers at the University are working on, from a sustainability standpoint, is water use," says PPD Landscaping/Groundskeeping Supt. Marty Werts. "We're continually looking at alternative methods of landscaping in order to decrease our water usage from irrigation, and the scrub garden project at Dauer Hall is a great example of those methods. Here we have a very nice greenspace that is composed exclusively of native foliage. These plants thrive in the wild, with no irrigation except for rainwater, and require very little maintenance. I think as we move forward



at the University of Florida, we may see these types of plants used more often in new landscaping applications to create unique, beautiful green areas which can survive and flourish with little to no irrigation."

Left: A Virginia willow mingles with other native foliage outside Dauer Hall.

Right: Beargrass (background) and pipestem wood are just two of the many varieties



of native plants used in this alternative landscaping application.

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structure.”

Florentine agreed, saying, “We’ve grown so much over the last one hundred years – there are pieces of pipe in the ground out here, from decades and decades ago, that are no longer marked on maps. There is a Master Plan for the University currently in place, a plan for where we think the University’s growth will go and guidelines for how to manage that growth. That’s something we didn’t have until recently, however, and the current infrastructure, for the most part, doesn’t have much rhyme or reason to it as far as the way it’s been laid out over the years.”

At a construction site near the Reitz Union, Smith discusses plans with a contractor. They are trying to find the best route for a new underground fiber optic cable, which will run under Museum Road. Every few feet, brightly colored swaths of paint mark the position of existing utilities lines already in the ground. The only route available is through a densely vegetated area at the corner of Museum and the Reitz Union Drive. Smith would prefer to run the cable closer to the sidewalk and away from the plant life, but he has no choice, since that area is already full of telephone lines and chilled water piping. So he sketches out a path through the tangled vegetation, and the contractor marks the route with white paint.

“It’s just inevitable at times that utility lines are going to have to go through wooded areas,” said Smith. “There’s just no more space left on campus for some of these projects. So what I try to do then is look at the area we’re working in and try to decide the best course of action. This particular area near Reitz Union is heavily wooded, but it’s also an area that is full of a lot of invasive, non-native plants. So, if we’re going to have to go through a wooded area, I would rather go through that type of area than one with native plants and trees.”

Each building on campus requires a massive amount of utility infrastructure to service it. “We have 1100 major buildings on-line right now,” said Florentine. “Each building has no less than 200 feet of chilled water lines, a hundred feet each of steam supply and return piping, a hundred feet of water piping, and a mile of telephone/electrical cable. All these pipes must be at certain depths, as well – so in areas you’ll have chilled water pipe running underneath electrical duct banks and so forth, which complicates matters further when you need to dig in those areas to get at one or the other.”

As new buildings are planned, Florentine prepares an infrastructure analysis, with recommendations and costs for the different utility networks required. “New buildings have to have chilled water supply and return piping,” he explained. “They have to have steam lines, water lines, sanitary and storm sewer lines. They have to have electricity as well as telecommunications lines. Depending on the type of building and its use, sometimes we have to plan for gas lines as well. When I’m doing these infrastructure analyses, I go out to the area and walk the site. I find the manholes and proposed routes for the utilities, and I look for problems that might arise with the existing trees and plant life. If those problems exist, then I call Erick and we work towards a mutual solution.”

At the new Genetics and Cancer Research Building, a handicap accessible sidewalk is being constructed. Smith points out exposed roots of pine trees along the sidewalk’s planned route where the ground had to be graded slightly in order for construction to be possible. “I really hate to see this,” he said. “But you have to have handicap access to the new building from the street, and this is the only route available to us. This is one of the situations where new construction places a lot of undue stress on these trees, and we just don’t have any way to avoid disturbing them.”

“The number one single threat to plant life on campus, though, without a doubt, is underground utility lines,” he continued. “If we had an unlimited amount of money, and we could do things all over again, then we could eliminate much of the patchwork nature of our utility network. But that’s just not possible – it would take a monumental amount of time and money to pull off. So what we do is work to improve the current system, one area at a time, as new projects are planned and funds become available for us to be able to work in those areas. I think it’s a testament to our current planning strategies, however, that we’ve been able to manage this massive utility network, along with the incredible amount of tree canopy on campus, with very few major problems.”

Florentine added, “Over time, we will be able to undo many of the problems that we face in dealing with the areas of the network we’ve inherited – it’s just a matter of resources and opportunity. Meanwhile, our utilities infrastructure landscape, moving forward, will be just as meticulously planned and well-crafted as the visible landscape above it.”



Decades-old stormwater conduits, exposed by constant erosion, crumble into a small runoff pond located in a ravine behind Mechanical Engineering. The ravine has been designated a conservation area and the conduits are scheduled for eventual removal.



Physical Plant Division
Personnel Services
PO Box 117700
Gainesville, FL 32611-7700

“Pondscaping” At Harn Museum

Donna Bloomfield and her crew from PPD’s Grounds Department have been hard at work improving the looks of the retention ponds behind the Harn Museum, at the corner of 34th Street and Hull Road. The ponds received landscaping makeovers, including azaleas, irises and other native plants. At the same time, water lilies and water lotuses, donated by Ms. Caroline Penn of Gainesville, were planted in the southern pond and in the reflecting pools located around the museum.

Top left: A bald cypress tree is part of the landscaping makeover at the Harn retention ponds.

Top right: Steve Corbett (left) of PPD Grounds and Caroline Penn root water lilies in special potting containers. The lilies were donated from a pond near her home by Ms. Penn.

Bottom right: Large groups of fieldstone conceal the stormwater runoff drains around the ponds.

Bottom left: Water lilies and lotuses were planted all around the banks, just offshore, by Grounds employees; by summer the plants will be in full bloom.

