ABOUT FACILITIES:
Departmental News You Need

On July 1st, the Department of Transportation Services (DOTS) joined University Facilities & Capital Planning in a strategic move that compliments the Physical Master Plan which lays out a strategy to increase connectivity within and among the campuses.

“So much of our master plan deals with connections to create a better student experience as well as efficiencies that do not exist today within and among our campuses,” said Antonio Calcado, Vice President of University Facilities & Capital Planning. He continued, “We run one of the largest university transportation systems in the country, and the second largest in New Jersey. How we manage this system at our current rate of growth will require innovative strategies. With our key players, and the combined expertise of DOTS employees under one department, we will reach our goals much faster.”

Jack E. Molenaar, Director of DOTS added, “This is an exciting time. We just kicked-off our Transportation Master Plan. We are already moving in the right direction as we look to the future of transportation at Rutgers. As a part of Facilities, we will use our collective years of experience to create mindful, lasting changes to how we traverse the campuses.”

Jennifer Stuart, Manager of Transportation, is helping develop the university’s Transportation Master Plan, and has been working closely with Facilities. She now reports to Frank Wong, Executive Director of University Planning & Development, who led the development of the Physical Master Plan. “Our departments interact often,” Stuart said, “It makes sense to work together especially as we look at the Physical Master Plan, and its impact on transportation.”

Stuart, along with Sharhonda Simpson, a planner, manages special event parking such as that which is needed for commencements, RU Day, and football games.

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Kudos to Tom Boland, Director, Facilities Project Services, Rutgers Newark. Boland, who was featured in our last issue for his piloting skills, was lauded by Jan Lewis, dean of the Faculty of Arts and Sciences at Rutgers University, Newark for work recently completed.

In an email to Antonio Calcado, Vice President, University Facilities, Lewis said, “Just a note to let you know that Tom Boland is terrific. It is not only the exceptional confidence and collegiality but also the amazing patience and focus on the job-at-hand in the face of some very difficult faculty and staff. Tom is an absolute treasure; don’t know what we would do without him.”

Bill Leipold, Assistant Vice President and Provost, Human Resources, Rutgers Newark, emailed the following to Calcado: “I need to brag about the HR staff, the Facilities staff, purchasing staff, and computer staff. Pictures are attached of how they transformed the HR office in the past few weeks.”

Pictured at right is part of that transformation. Tom Boland and his staff should be flying high with these Kudos!

RBHS Housekeeper sets goals in motion

RBHS Housekeeper Marilyn Maisonet started school in 1993 when she first moved to America from Puerto Rico. She needed to learn English, and while she wanted to continue with other studies, money was tight and she had to leave school to work fulltime. In the ensuing years she married, had two children and eventually came to work for the former UMDNJ Piscataway Campus as a housekeeper.

During this time, her husband kept encouraging Maisonet to return to school. “I wanted to go for court stenography, but the person who interviewed me for acceptance into the program actually discouraged me. I did not go,” Maisonet explained.

Maisonet had also worked for a daycare and volunteered at a nursing home. “I like children and older people, and it was my husband who convinced me to go into social work instead.”

Marilyn’s quest began with attaining her Associates Degree in Social Work at Middlesex County College. She graduated in May 2012 with high honors. She transferred to Rutgers in Spring 2012 and completed her Bachelor’s Degree in May 2014. Marilyn then applied to Fordham University in Lincoln Center where she was accepted for the Advance Standing Program. There, she completed her Master’s Degree within a year. She graduated on May 17 with a GPA of 3.65.

Now Maisonet is preparing to take the license test, “When I was studying for my Associates degree, I never thought I would finish, but even though I struggled, I never gave up. I thank God for giving me this amazing opportunity to reach my goal. I thank my husband of 23 years for being there when I most needed him, and our children for their understanding.”

Marilyn dreams of one day having her own practice where she can work and put everything she has learned to help others. She hopes to specialize in the needs of veterans. “I really want to help our veterans. I think they are sometimes forgotten,” she said.

Congratulations Marilyn!
In the spotlight:

WELCOME DEPARTMENT OF TRANSPORTATION

Continued from page 1.

Stuart, and transportation planners, Leigh Ann Kimber and Zachary Subar, are also responsible for reviewing the design of all construction projects for their impact on transit operations, bicycle, and pedestrian flow.

DOTS runs approximately 45 buses transporting some 70,000 passengers on a daily basis. The unit manages approximately 30,000 parking stalls located in the university’s surface lots and its 11 parking structures. A para-transit service provides specially equipped buses for those who are physically impaired. “While all of our buses are handicapped accessible, we have found that it is more efficient to have these additional buses devoted to transporting our physically challenged students wherever they need to go,” Molenaar explained. “We have a handful of dedicated drivers who really get to know the students and their schedules and move them quickly around campus.”

DOTS also manages bike registrations, bike rentals, and bike lockers, as well as parking permits, visitor parking, seasonal parking, and parking rules, regulations, and penalties.

“The bicycle program is very popular,” Stuart said. “We provide bike lockers, bike safety programs, route maps, and all of our buses have bike racks. We submitted a proposal seeking a Federal grant to start a bike sharing program.” The bike sharing program would be open to surrounding communities, with DOTS handling the operation of the program. “We are hoping to partner with local municipalities so that they can participate in the bike sharing program, as well,” Stuart explained.

“The Department of Transportation Services has been known by its obvious acronym, DOTS,” Calcado explained. “They connect the dots from campus to campus and move an extraordinary amount of people in the process. A large part of the Master Plan is improving on that process; allowing for more bike and pedestrian friendly alternatives, bus rapid transit, creating campus hubs, and parking alternatives. This is a timely and synergistic administrative change and it will clearly benefit the university,” Calcado concluded.

Read more about the Department of Transportation provides on their website: http://rudots.rutgers.edu/.

Keep bikes safe and dry: Bicycle lockers on the Livingston and Cook campuses are available for rental.
The Institute for Food, Nutrition & Health Modular labs; 6,000 interior plants

"I’ve had more interaction in the past three days than in the past three years." Peter Gillies, PhD, was describing what one of his faculty members said about the open collaborative spaces in the new Institute for Food and Nutrition located on the Cook Campus. Gillies is the institute’s director.

The mission of the institute, which University Facilities completed in July, is to study obesity, eating habits, and focus on creating paths to healthier lifestyles. The 84,000 square foot building was designed to mirror this mission and prepare students for their entry into the workforce, both academically and the way in which their physical space is designed.

Set atop a hill, the curtain wall styled building allows for as much natural light as possible with end to end bucolic, park-like views, including horses grazing in pastures.

The open, modular office and laboratory areas are designed to foster frequent collaboration. “The open model is very popular,” said Stephen Galayda, Senior Facilities Project Manager, who oversaw the construction.

"It takes the researcher out of what used to be a rather isolated environment, and allows for a flow of ideas that did not always happen in previous laboratory and R&D layouts.”

The institute’s BSL II laboratories compliment the building itself with their own look-through elements. The labs are completely secure, but with their large glass windows and glass doors, they are visually accessible to passers-by. “We wanted to keep the labs secure, but put science on display," Gillies said.

The office area is also an open design and will accommodate both students and instructors in the same space. “This office style is what students will find when they enter the business world,” Gillies, explained. "From food to pharmaceuticals, this is now the

nutrients. As the water circulates through the recirculation tank, it is piped back out to the wall and the cycle continues.

The wall was designed to be a living support system. The eco wall technology allows screws and bolts to help support the life of the plants.

The building also monitored for shape, flexibility, and comfort.

The $55 million structure will offer healthy, plant-based foods, and avoid food waste. The technology is the large indoor vertical landscape that grows without soil using a trellis-like system.

The wall contains over 6,000 plants, which are adaptable to this environment. Skylights and supplemental lighting provide the atmosphere the plants need.

The eco wall in the new Institute for Food, Nutrition & Health includes:

1. Skylights and supplemental lighting
2. The wall contains over 6,000 plants
3. The wall is located on the main floor along a staircase
4. The wall is built away from all doors and windows
5. The wall is designed for use by children, and play areas have brightly colored walls and floors.
R&D norm. Sixty percent of our PhDs will work in the private sector in this very environment.”

With good health the prescription of the day, an eco/living interior wall fits right in.

“The eco wall contains an integral self-watering system so that it is automatically watered and fertilized at prescribed intervals,” Galayda explained. “A series of manifolds and pipes behind the wall allow for the disbursement of the water and the water filters out onto the plants, a trough pipes it back into the 750 gallon tank, where it then passes through fertilizer and food distribution system and is then back to the plants.”

Designed and installed by EcoWalls, LLC, based in Bordentown, NJ. Their technology allows for an indoor vertical landscape to grow without soil using a trellis-like system.

The eco wall receives natural light from skylights, and there are also a series of plant lights that provide enough light for the plants to thrive. The building is the first on campus to use chilled beams. Chilled beam technology is highly efficient, providing cooling or heating via circulating water. While traditional HVAC systems require constant air supply, the water used by chilled beams can carry more energy than air. Solar tracking shades will add to the buildings’ interior comfort.

The $55 million structure also accommodates a restaurant, aptly named Harvest, which offers healthy, plant focused meals. The menu is designed around minimally processed foods, and avoidance of additives, chemicals, sugars and artificial enhancers. A major feature is the large pizza oven.

The building is completely wireless, and huddle rooms and conference rooms have digital monitors for sharing work. "Everything is going digital,” Gillies said. "I had to get faculty to commit to a no paper environment."

Features of the three story building include a human performance lab and gymnasium for individual research and evaluation. The gymnasium is not for public access; it is strictly for monitoring individuals with specific health needs. The Willets Health Center has also relocated the building.

Researchers want to tackle obesity problems from a young age, a Childhood Nutrition & Research Laboratory was incorporated into the design. It includes a kitchen sized to accommodate small children, indoor and outdoor play areas, and a safe room from all doors and windows should it be needed. The outdoor play space, under construction, will feature interactive components. "We can accommodate children we are targeting children aged two to five, as studies have shown that we can change habits from a very early age,” Gillies said. “The idea is for children to have a healthy weight before kindergarten.”

And of the work we did to create an atmosphere that will allow for great progress of research,” said John Shulack, Associate Vice President Project Administration, University Facilities & Capital Planning. “The look and feel of a building all contribute to the research and creativity that occurs within its walls.”

The eco wall in the Institute for Food, Nutrition & Health, from top:

1. Skylights and supplemental lighting provide the atmosphere the plants need.
2. The wall contains over 6,000 plants, which are adaptable to this environment.
3. Located on the main floor along a staircase and brings the benefits of an outdoor scape to the interior.
4. Looking up toward the ceiling skylights and supplemental lights.
5. The recirculating tank and food and fertilizer station provide the plants hydration and nutrients.
The Busch Campus cogeneration plant does not get a lot of downtime. In fact, there is about a one week window, directly following commencement when plant employees start turning off all boilers and turbines to conduct maintenance. A shutdown, however, is hard to do when you are sending energy out along 15 miles of distribution line. With so many Rutgers New Brunswick campus buildings open year around, there is no time to power down.

Upkeep is important when a plant operates around the clock. So in 2014, a decision was made to shut down the plant briefly for major piping and valve replacements. Not only is the plant functioning more efficiently, but a system was developed and put in place for all power generating plants on our campuses, from the color of the walls, floors, and pipes to the inspection of equipment.

The original Busch boiler plant, as it was known then, was built in 1965. A cogeneration plant was added in 1995. Cogeneration plants efficiently deliver electricity and hot water for heating. The plant can heat the entire campus with its three Solar Taurus 60 Turbines, capable of supplying 25 million Btu-s. Each unit can supply 5 megawatts of electrical output.

“In 2014 the plant was shut down for major piping and valve replacements throughout,” said Ted Elonis, Director, Plants & Distribution. “Plant and Utilities personnel changed and rebuilt over 136 valves. Almost everything was managed with in-house personnel. We are very proud of that fact. We were able to avoid the added expense of calling in outside contractors because we have the staff, and they know this plant thoroughly.”

In a seven day, 24 hour rotation, two-12 hour shifts, 17 pipefitters per shift, changed and rebuilt valves. New Kobelco compressors, replacing failing units from the 1950s and 1960s, were also installed by plant and utilities employees.

Robert Williams, who started as a Controls Technician 14 years ago, is the Chief Engineer of the cogeneration plant. He has a Gold Seal operator’s license and has overseen the upgrades. Even the painting of the plant—walls, floors, pipes and tanks—is ongoing and being done in-house by Patricia Campanelli, Mechanic I. “Tricia has done an outstanding job,” said Williams. “Our goal is to apply standard colors throughout our power plants, which include the cogeneration plant in RBHS Newark, and two boiler plants, one in Camden and one at Rutgers Newark. Our walls and floors are the same, and Tricia has color coded all of the pipes so that we know immediately what goes through each pipe. This is extremely important; we can pinpoint a problem quickly and new staff knows by color what is in each pipe. Rotating staff will find continuity throughout our plants.”

“Our goal has been to standardize all equipment and create a look and operating system among all of the plants,” Elonis added. “And, we wanted our own staff to do as much of the work as possible.” The plant employees recently demolished an old forced draft blower and put up all the rigging for a new one. “The only reason they did not install the new unit was that the
manufacturer’s contract only allows for its own installers,” Elonis explained.

Part of the plant upgrades included servicing two, 100,000 gallon hot water tanks. “Our people removed one foot of sludge inside each tank through the manway access. It was a huge job,” said Williams. The tanks, with their new valves, paint job, and free of sludge, practically glisten, and are far more efficient.

Security cameras have also been installed on all of the plants, and extremely vital to the upgrades, is retrofitting the Island Mode system. “Island Mode is when power is cut off completely usually due to a powerful storm, like what we saw with hurricane Sandy,” Williams explained. “We have to rely on our generator to supply critical load.” The one megawatt generator supplies power to the most critical campus areas in a situation requiring Island Mode. “If the generator is not up to speed then we can’t supply even the most necessary areas,” Williams said. The recent upgrades included servicing the generator.

As the University’s footprint grows, energy demands increase. “We have found that the solar fields help take some pressure off of the cogen,” Williams said. “We also utilize a service that tracks electricity rates. If it becomes cheaper to buy power rather than generate our own, we take advantage of that. In the end, however, the plant supplies a lot of power to our campus. These upgrades are critical to an aging plant,” Williams added. “If you are running close to the edge because of aging equipment, and then you lose a piece of equipment, now you are on the edge. That’s not where you want to be. We have a great system in place, a plant that is far more efficient, and our staff knows what they have to do to keep the power flowing, and they know this no matter what campus they are in.”

All campus cogeneration and power plants have been painted similarly for greater continuity throughout. The display wall on the left in the Busch cogen shows all licenses, as well as equipment inspection information. Also, in all statewide plants, prints of the distribution system and plant schematics are framed on walls.
RBHS Newark Project Services was fortunate this summer to have two interns working in Facilities. Both men, Rutgers students, spent the summer working on projects and gaining invaluable experience. “I learned a lot about construction and the construction process,” said Dylan Robertson, a Rutgers senior who lives on the Piscataway campus. Robertson worked with Senior Project Manager, Matthew Peterson on a number of projects, including new lab space in the Stanley S. Bergen Building.

“Matt taught me the five phases of construction: pre-design, design, preconstruction, construction, and close-out. I never knew there was so much involved,” Robertson said. “My first day I had a fairly easy assignment to see if a filing cabinet system was suitable for a particular office. Then the projects got more involved from working on lab space to installing generators on the hospital roof,” said the mechanical engineer major. Robertson, who is also pursuing a minor in economics has always been interested in the way things move, and hopes a mechanical engineering degree will lead to a fulfilling career. “I am still deciding what I want to do, but I think I’d like to get into a large automotive company or design firm. I might even consider graduate school.

Theerayut Jaiyen who goes by TJ, also had the opportunity to work on a number of projects this summer with Project Manager, Vincent Wadolwski and Senior Project Manager, Shai Patel. The Civil Engineering major is also going into his senior year at Rutgers, where he lives off campus. “I worked on the Level C Dental School project, and we are also renovating the call center in the University Behavioral Health Care building, and a lab renovation in the Dental School. There are a lot of projects and I got a taste of construction management.” Once he attains his degree, TJ is looking to do structural design or something in hydrology. “I want a career that offers variety, and eventually I want to work for myself.”

“We were fortunate to the extra help this summer,” said Nicholas L. Fabbroni, Senior Director RBHS Project Services. “It helps us and it helps these students to get real world experience and enter the job market with something on their resume. We all wish TJ and Dylan great success, as the head back to school for their senior year.”

CONGRATULATIONS RETIREES!

Congratulations to recent retirees, Larry Mullins and Melvin Braxton. Mullins was with RBHS Newark as a Utilities Energy Coordinator for 29 years. Mullin’s co-workers threw him a surprise farewell luncheon on his final day, June 30.

Braxton officially retired July 30 after a long 30 year career with Rutgers. His achievements were recently chronicled in our newsletter including his graduation from Rutgers with a degree in Economics. He received the Chancellor’s Award for Staff Excellence from RU Camden Chancellor Phoebe Haddon.

Congratulations Larry and Mel, and best wishes on your retirement, and thank you for your long years of service.