Penn Compact 2020 builds on the past decade of progress we have made in advancing the University of Pennsylvania. It is a far-reaching vision that outlines next steps to increase access to Penn’s exceptional intellectual resources; integrate knowledge across academic disciplines with emphasis on innovative understanding and discovery; and engage locally, nationally, and globally to bring the benefits of Penn’s research, teaching, and service to individuals and communities at home and around the world.

– Amy Gutmann, President
University of Pennsylvania
The physical manifestation of the Penn Compact is the Penn Connects campus development plan – an exciting blueprint for the campus adopted in 2006. Penn Connects 2.0 builds on that comprehensive strategy and reinforces the University’s sustainability objectives. Over the last decade, Penn has added 27.25 acres of new open space, 6 million sq. ft. of new construction, and 2.4 million sq. ft. of renovation, representing a total commitment of public and private investment of $3.8 billion.

Bringing to life the vision of the Penn Compact falls in the most tangible way to us in Penn’s Facilities and Real Estate Services. The Division provides the expertise, business practices, policies and standards required to plan, design, construct, operate, maintain, and renew the physical assets of the University. Through these actions, our staff members across all departments impact the ability of the University to meet its goals in teaching and scholarship, medical research and clinical care, living and learning, and campus and community.

I invite you to view this FY2014–FY2015 Biannual Report as an account of the collaboration between FRES and our colleagues in the EVP division and in each of Penn’s Schools and Centers. I also direct you to videos of how Penn’s campus has been transformed, by honoring its history while creating a vibrant, innovative, and sustainable urban university for the 21st century and beyond.

Sincerely,

Anne Papageorge
Vice President
Facilities & Real Estate Services
The Office of the University Architect guides the planning and design of new construction and preservation on campus, while the Design & Construction Department manages the design and executes new construction and renovation of existing properties. Both teams implement the Capital Plan in conjunction with the Operations & Maintenance and Administration Departments.

The campus development plan, Penn Connects, recommends sustainable development for all new projects. New buildings and major renovation projects currently under design are registered with the U.S. Green Building Council, and are targeting LEED Silver rating or higher. At the end of FY15, the University had eight on-campus LEED Certified buildings and nearly a dozen additional LEED-registered projects in construction, design, or planning.

570
Average number of construction workers on campus per day working on Penn projects during summer 2015

MAJOR COMPLETED PROJECTS

Completely restored and renovated in 2013–14, the Arts, Research and Culture House (ARCH) serves as home for many of Penn’s student cultural groups and the Center for Undergraduate Research and Fellowships (CURF). The project restored and reused most of the original building, including walls, windows, and superstructure. The $24M restored ARCH at 29,000 sq.ft. includes a café, a large, high-tech auditorium, fully upgraded mechanical and electrical systems, and a new elevator.

Chemistry 1973 is the first building in which a comprehensive mechanical and lighting systems $15.5M renovation under Penn’s Century Bond program was completed. The 150,000 sq.ft. building is home to lab, lecture, and office spaces, an auditorium and a library. Chem ’73 had been on a list of research buildings targeted for renovation based on its advanced age and the deteriorated condition of its heating, ventilation, and air conditioning (HVAC). When the Century Bond funding became available in spring 2012, several buildings were studied to determine their feasibility for renovation, examining cost, condition, and payback based on utilities savings, among other factors. Ultimately, Chem ’73 was selected as the first project.

Gregory College House consists of two, four-story buildings — Van Pelt Manor and Class of 1925 House — totaling 117,000 sq.ft. Over two summers, Gregory underwent a $17M renovation to student rooms and public spaces that transformed the College House. The most visible renovation took place on the first floor of Van Pelt, where a new programmatic west wing became a bustling hub for study, play and culture.
In August 2013, the 59,500 sq.ft. Hutchinson Gym reopened with substantial upgrades. The $24.7M project transformed the building into the modern Tse Ping - Cheng Cheung Ling Sports Center, featuring practice space for Penn basketball, fencing, golf, gymnastics, wrestling and rowing programs.

A project that included a new recording studio, publications room, and exterior porch was completed at the Kelly Writers House at 3805 Locust Walk in fall 2015. Physically connected to both the Smilow Center for Translational Research and the Roberts Proton Therapy Center, the Henry A. Jordan Medical Education Center is designed to integrate research and clinical facilities with classrooms and other educational spaces. This $43M project completed in January 2015 provides state-of-the-art facilities for Perelman School of Medicine students and offices for faculty.

Ongoing work at Meyerson Hall includes multi-phased improvements to studios, common areas, entryways, and the fabrication lab. The 2nd floor studios were renovated in summer 2013, along with exterior improvements on the 34th and Walnut Streets side of the building, at a cost of $3.55M. This work was followed in summer 2014 by a $3.165M renovation to the 3rd floor studios. A portion of all upgrades are Century Bond funded.

Continuing a multi-phased renovation of the Penn Museum, improvements to the Conservation Labs on 1st floor were completed, as were renovations to office space on 3rd floor, specifically addressing climate control and replacement of windows. This $4.4M phase of the project, completed in August 2014, renovated just over 8,000 sq.ft. of the museum.

The Alfred Newton Richards Medical Research Laboratory, designed by Louis Kahn, was designated a National Historic Landmark in 2009. A partial renovation project for the 104,000 sq. ft. building began in June 2014. Projects through the end of FY15 have renovated approximately 52,000 sq. ft. The total budget for Richards is $29.8M, with $4M of that sourced from Century Bond. Work through FY15 has concentrated on the 5th and 6th floors of the C and D towers, where obsolete wet lab space was converted to dry labs and offices. All windows were replaced following the original Kahn design, including the enormous glass sheets at each floor level and the distinctive blue glass above them.

Just south of Penn Park is Penn’s River Fields, a six-acre, $4.8M project completed in fall 2013. This sports complex includes the trio of facilities that serve as the home for Penn soccer, field hockey, and track & field. Ellen Vagelos (C’90) Field was designed for women’s field hockey with Astroturf. It shares a rotating scoreboard with Rhodes Field. Irving “Moon” Mondschein Throwing Complex facilities for javelin, shot put, discus, and hammer were improved.

The Krishna P. Singh Center for Nanotechnology, which broke ground in February 2011, was completed in August 2013 and opened with a grand celebration that November. This $91M, 78,000 sq. ft. building provides access to high-performance nanotechnology equipment (electron and scanning probe microscopy, traditional micro- and nano-fabrication equipment) to researchers from across Penn’s campus as well as neighboring institutions. Environmental sustainability features include green roofs and underground cisterns which contribute to stormwater management.
Construction began on the **New College House** at 34th and Chestnut Streets in fall 2013 and will be complete in August 2016. This $127M, 198,000 sq.ft. student residence will be completed for the fall 2016 semester. The New College House will house up to 350 undergraduate students primarily in three and four bedroom suites as well as 15 faculty and staff who are part of the College House program. A University-wide groundbreaking was held in November 2013 attended by Penn President Amy Gutmann and several of the building’s key donors.

Designed by Eero Saarinen in 1958, **Hill College House** is an internationally recognized architectural landmark located at the corner of 33rd and Walnut Streets. A complete renovation of this 195,000 sq.ft. building will begin in May 2016 following graduation and will be complete in fall 2017.

A December 2014 “topping off” ceremony signaled the completion of the structural phase of the six-story.
Penn’s **Century Bond** program is funded by a $300M bond issued in spring 2012 that has a 100-year term. Of that total, $200M is directed towards financing energy efficiency upgrades in lighting and HVAC systems and deferred maintenance. In partnership with funding from individual Schools and Centers, the Century Bond program is helping Penn fulfill its goal of reducing the institution’s carbon footprint as outlined in the Climate Action Plan.

Since work began under this funding program, lighting upgrades have been completed in 42 buildings. More than 57,000 fixtures have been upgraded and 5,000 vacancy sensors have been installed with a Century Bond contribution of $8.5M. Lighting upgrades will save more than $1M a year in utility costs (using 2012 pricing).

Heating, ventilating, and air conditioning (HVAC) upgrades are in varied stages of progress in 8 buildings as of Spring 2015.

### School and Building | Century Bond Contribution
--- | ---
Perelman School of Medicine  
Richards Building, C&D Towers  
Stemmler Hall (2 projects) | $4M  
$53.6M
School of Arts & Sciences  
Chemistry 1973  
Leidy Laboratories of Biology | $15.5M  
$18.5M
Penn Dental  
Evans Building | $11.8M
Penn Design  
Meyerson Hall | $11.6M
Penn Vet  
Ryan Veterinary Hospital  
Rosenthal Building | $19.4M  
$15.1M

The **Kleinman Center on Energy Policy** has been established at PennDesign with a gift from Scott, C’94, W’94, and Wendy Kleinman. The 5,600 sq.ft. Center, located on the 3rd and 4th floors of the Fischer Fine Arts Library, will advance energy productivity by reframing the relationship between research and practice in support of energy policy innovation.

Renovations to the Perelman School of Medicine’s **Stemmler Hall** include revitalizing the building through extensive renovations, creating “Class-A” Laboratories, open-concept spaces similar to those in the Smilow Center for Translational Research, meeting rooms and enhanced common areas for collaboration. These extensive phased renovations (200,000 sq. ft.) totaling $119M are scheduled for completion in December 2017. A portion of this project is funded by Century Bond.

The **Module 7 Chiller Plant** at the campus’ southern gateway near the University Avenue Bridge is undergoing expansion (22,750 sq. ft.) with the installation of two new 5,000 ton steam-driven chillers along with associated cooling towers, pumps, piping and controls. The $81.6M construction at the site is expected to be complete by summer 2016 with seasonal testing and commissioning.

issues of the 21st century. As a hub for international exchange and activity, the Perry World House will anchor Penn’s global resources on an interdisciplinary campus while creating partnerships abroad. The 17,000 sq.ft., $18.7M project, made possible by a generous gift from Richard C. and Lisa Perry, will be open for students and researchers in summer 2016.

The **Ronald O. Perelman Center for Political Science and Economics** will bring together the School of Arts & Sciences’ strengths in engaged global Social Science research and teaching. The 110,000 sq. ft., $77.6M Center will be located in a new facility that will combine a rehabilitation of the existing building at 133 S. 36th Street with a significant addition to its north. This new home for the Departments of Political Science and Economics is anticipated to open in spring 2018.
Shoemaker Green received a Two-Star Certification as a pilot project of the Sustainable Sites Initiative, the nation’s first rating system for green landscape design, construction, and maintenance. Opened in 2012, Shoemaker Green is a 2.75-acre outdoor space located near 33rd Street and surrounded by the Palestra, Franklin Field and the David Rittenhouse Laboratories. Because SITES’ rating system emphasizes consideration of landscape construction and maintenance practices, participation in this program has influenced Penn’s approach to the entire campus.

Through the Class Tree program, carried out with Penn’s Morris Arboretum, and sponsored by William Hohns, W’74, a tree is planted on College Green in the name of the graduating class. This recent tradition maximizes student environmental engagement. The Class of 2017 selected an Overcup Oak, while the Class of 2018 planted a Bald Cypress tree.

Local harvests of Penn’s fruit-bearing trees and shrubs take place with the partnership of the Philadelphia Orchard Project (POP). In June 2014, POP staff and Penn volunteers visited campus and gleaned six gallons of the ripe red Juneberries from a handful of locations at Penn, including outside of the McNeil Building. In September, crabapples trees yielded close to 40 pounds from three clusters of trees on Penn’s campus. The fruit was used at local businesses and culinary education centers.

Designed as a pilot program, the Penn Park Demonstration Orchard will be used to study the development of fruit-bearing plants in urban environments. More than 25 volunteers turned out in October 2014 to help FRES Urban Park staff dig holes and plant the trees and fruiting shrubs. As the plants mature, members of the Penn community will have the opportunity to join harvest events scheduled by the Philadelphia Orchard Project.

Penn is exhibiting best practices in sustainability by installing green roofs on a number of buildings, capturing rainwater and decreasing the burden on the West Philadelphia sewer system. Penn’s 2013 Stormwater Management Master Plan addresses stormwater management, including cisterns, bioswales, rain gardens, green roofs, and permeable paving.

One of the world’s most attractive urban campuses, Penn is home to significant achievements in planning, landscape design, and architecture. The University’s campus development plan, Penn Connects 2.0, released in 2011, explicitly references Penn’s sustainability agenda, and integrates environmental stewardship goals into Penn’s overall planning initiatives.

Number of trees included in Penn’s West Philadelphia campus tree count following a recent physical survey.

6,000+
Penn’s Tree Committee, led by FRES’ Landscape Architecture team, is comprised of representatives from the Morris Arboretum, USDA Forest Service, University City District, UC Green, Temple University, and Penn Faculty. This membership shares a common goal of preserving, maintaining and planning the future of Penn’s urban forest while creating more opportunities for research and outreach.

FRES and the Morris Arboretum have created a “memorandum of understanding” as a living document to define yet allow for flexibility in the services that Morris will provide for the Penn campus. Among many tasks, staff from Morris will monitor the health and wellbeing of our trees, continue to oversee the American elm and ash management program, and help us to update our tree policy to improve and expand planting, protection, and tree replacement guidelines. The plan will also introduce unique species of trees to campus, and take cuttings of our historic Treaty elm to continue its legacy.

The application of compost tea to turf throughout campus has expanded and outcomes are being studied. Several times a year, across 20 campus sites, the FRES Landscape Architecture team conducts biological, chemical, and root depth tests to inform our ecological fertilization program. Samples are also sent for review, interpretation, and recommendations.

With the completion of the landscaping between the Ringe Squash Courts and Franklin Field during FY14, Penn can, for the first time in our history, claim a continuous ‘green line’ across its entire campus, west to east, from 40th St through Penn Park.

Landscape Walking Tours for Eco-Reps, Penn Alumni, prospective students, and many other groups have grown in popularity. A special Earth Day 2015 tour took participants from the BioPond near the James G. Kaskey Memorial Garden through College Green to Penn Park in celebration of the University’s achievements in ecological design.

The Pennsylvania-Delaware Chapter of the American Society of Landscape Architects (ASLA) held its 2015 Annual Meeting May 1-2, 2015 at the University of Pennsylvania. FRES’ University Landscape Architect demonstrated how our campus has interpreted the ASLA meeting theme in its open spaces: Prove It. Metrics of Design.

Environmental sustainability is an enduring priority for the University. Extensive contributions to the initiation and achievement of University sustainability initiatives are made by the Division of Facilities & Real Estate Services through energy management, waste management, sustainable design, and regular collaboration with various constituents around the University and the City of Philadelphia.

The Vice President of FRES chairs the Environmental Sustainability Advisory Committee (ESAC), a group of faculty, staff, and students who advise University Leadership on environmental sustainability issues in order to progress Penn’s Climate Action Plan. A number of FRES staff members sit on, and in some cases, chair, one of the ESAC Subcommittees: Utilities & Operations, Physical Environment, Waste Minimization & Recycling, Purchasing, Transportation, Academics, and Outreach & Engagement.

CLIMATE ACTION PLAN 2.0

Penn’s Climate Action Plan 2.0, launched in October 2014, sets challenging new standards for campus performance, expands educational opportunities for students, and provides enriched support for faculty research, teaching and collaboration. In the five years since the introduction of the original Climate Action Plan, significant progress has been made.

Below is a review of the 2009–2014 main objectives by the numbers as published in the October 2014 Climate Action Plan 2.0 report:

**Bolstering the Curriculum** — Penn now offers over 170 courses focused on and related to sustainability, and the Integrating Sustainability across the Curriculum program added 22 faculty and 12 students who have collaborated to infuse principles of sustainability into 21 courses.

**Reducing our Carbon** — Penn achieved an 18% reduction in its carbon emissions from FY 2007 to FY14, and also achieved a 6.6% reduction in normalized energy consumption.

**Growing Greener** — As a major research university Penn meets its mission of teaching and research with new facilities. But the Climate Action Plan focuses that growth to be more sustainable, resulting in five new buildings achieving LEED Gold Certification, and more than 27 new acres of green space added since 2009.

**Minimizing Waste** — Penn recycles nearly 26% of its waste, including traditional recycling, composting, and e-waste and educates our community about the importance of decision making in what products
Since 2009, the Penn Green Fund, supported by FRES, has seeded innovative ideas in environmental sustainability from Penn students, faculty, and staff. Updated in 2014, the program now offers a maximum grant amount of $30,000 and a rolling deadline for grant applications under $7,500.

With 60 certified Green Offices in place, the program to recognize staff and faculty for their efforts to green their daily activities and workplaces is making its way across Penn. A revised set of sustainable actions was released in 2014 (Green Office 2.0) to guide offices towards an accumulation of points to attain certification Levels 1 through 4. In June 2015, the FRES office in the Left Bank building achieved Level 4 certification.

A similar daily living incentive program for students was expanded, called Green Living, and offered to those living in Penn’s College Houses. Green Living recognizes behavior change and a culture of sustainable living on campus with Gold, Silver, or Bronze stickers for more than 150 College House room doors.

The Eco-Reps, Penn’s environmental leadership program, continues to develop and offer students, staff, and faculty the opportunity to connect with peers building a sustainable culture. Student Eco-Reps exist in all College Houses, in Athletics, in Greek organizations and in Hillel. They have organized zero-waste basketball games and participated in the Green Apple Day of Service, organized by the Center for Green Schools at the U.S. Green Building Council.

The Staff & Faculty Eco-Reps program has matured to the extent that it has elected leaders from among its own ranks and now, with FRES staff support, three staff co-chairs plan meetings, speakers, group activities such as the 30x30 Outdoors program, and a book club.

They consume. Penn has simultaneously reduced it’s landfill waste by almost 10%—which with recycling is a more comprehensive metric of overall waste minimization on campus.

Commuting with Fewer Emissions — Approximately 50% of Penn commuters now use public transit, walk or bike. Our community has witnessed an increase in people using alternative transit by nearly 10%, playing to our strength as a dense campus easy to traverse by foot or bike and well connected by public transit.

Engaging the Penn Community — Nearly 350 students and more than 100 staff have volunteered as Eco-Reps over the past five years, championing sustainable actions in offices, College Houses, student organizations and athletic teams.

Climate Action Plan 2.0 acts as a blueprint for development of further “green” initiatives at Penn’s West Philadelphia campus, and is folding in to those initiatives the University of Pennsylvania Hospital System, Penn Vet’s New Bolton Center in Kennett Square, PA, The Morris Arboretum in Chestnut Hill, PA, and campus retail and real estate development projects.

Since the launch of the Climate Action Plan, number of acres of new green space added to Penn’s West Philadelphia campus
Sustainability Initiatives

The Penn Green Fund continues to provide the opportunity for students, faculty, and staff to realize innovative project ideas on sustainability issues. More than 50 grants have been awarded since the program began in 2009, including:

- **Staff in the School of Medicine** conducting a pilot on the use of reusable glass petri dishes instead of disposable plastic ones. (FY15)
- **Students in the Equal Justice Foundation (EJF) at the Law School** establishing permanent collection locations for law textbooks so they can be reused. (FY15)
- A student working with staff in Penn Dining as part of her independent study project to analyze food waste in the campus dining halls, with the aim of reducing waste and increasing efficiency. (FY15)
- A staff member working with FRES to implement window treatments at two existing buildings to make the glass more visible to birds, thereby reducing the number of bird strikes while they migrate through the area. (FY15)

Students apply each year to participate in Move-In Green, Penn’s only campus housing move-in program dedicated to environmental sustainability. In 2013 and 2014 combined, Move-In volunteers helped recycle approximately 50 tons of cardboard, and distributed hundreds of CFLs, recycling bins, and reusable water bottles.

Each spring, FRES and Penn’s Business Services Division team up to operate PennMOVES — a collection program that encourages students leaving campus to donate items they no longer want rather than toss them in the trash. The 2014 collection sent 52,386 pounds — nearly double that of the previous year — of clothes, books, furniture, and kitchen supplies to Goodwill, and 3,551 pounds of food to Philabundance.

Green Guidelines for Renovations address the sustainability requirements for small and medium-sized campus construction projects. Renovation projects greater than 10,000 sq. ft., and over $7M are required to pursue LEED for Commercial Interiors; smaller renovations are to follow the Green Guidelines.

In May 2015, through a partnership with Philadelphia Parks & Recreation and the Pennsylvania Horticultural Society, FRES sponsored the Creating Canopy tree giveaway program. More than 300 free yard trees, along with tree planting and care instructions, were distributed at no cost to University and UPHS employees.
ReThink Your Footprint, launched in fall 2013, is Penn’s annual waste minimization awareness campaign. ReThink raises the level of conversation about waste management beyond solely recycling and into a broader discussion of source reduction and reuse — resulting in greater diversion of campus waste from the landfill. During the month of November, campus groups hold zero-waste events, conduct waste audits, set up e-waste collections, and much more, to inform everyone about the ideas of reduce, reuse, recycle.

Power Down Challenge moved to Spring semester in February 2014, bringing its energy conservation messages to the forefront. All College Houses and a diverse group of non-residential campus buildings participate in this month-long competition. FY14 College House winners were Du Bois and Sansom Place; Meyerson Hall saved the most energy among campus buildings. Thanks to the committee’s efforts, Penn was named a Silver “Bike Friendly University” by the League of American Bicyclists in fall 2014.

Visibility of zero-waste events increased overall across campus. Zero-waste basketball games took place at Palestra, hosted by Athletics Eco-Reps, and a “How to” Zero-Waste Events presentation was made to Penn meeting planners by members of the FRES Sustainability team.

FRES is part of a cross-campus Bike Committee that has updated Penn’s official bike policy, advocated for bike lanes around campus, revised website content and bike maps, improved signage, and increased the number of and relocated bike corrals. Thanks to the committee’s efforts, Penn won a Silver “Bike Friendly University” by the League of American Bicyclists in 2014. The Bike Committee also played a large role in recommending the installation of three of Philadelphia’s Indego Bike Share stations on campus.

Solid Waste Management Working Group brings together FRES senior leadership and representatives from School and Centers across campus to review the University’s waste management systems. A Solid Waste Management Plan published in June 2013 offers 30 recommendations for University-wide implementation. To date, the Working Group has approved new standard operating procedures, developed new signage and pictograms for the recycling, compost, and landfill, and set up pilot programs (trainings, monitorings, education) for composting in several different centers and schools.

The University issues Red Day notifications when hot summer days are predicted to spike regional electricity demand. During these times, everyone on campus is requested to do what they can to reduce demand. This reduces stress on the power grid and reduces Penn’s electricity costs. Similar alerts have been issued in cold weather when utility systems are predicted to be working at maximum capacity.

Penn received a Silver rating from the Sustainability Tracking, Assessment & Rating System (STARS) – a self-reporting framework of sustainability metrics specifically developed by the Association for the Advancement of Sustainability in Higher Education (AASHE). The STARS standard categories and transparent scoring metrics allow for easy assessment of the University’s performance and future opportunities. Although the STARS ratings last for three years, Penn will update its submission every two years so that content remains relevant and progress can be regularly measured against these defined standards.

Green Academic Initiatives

The Integrating Sustainability Across the Curriculum (ISAC) program is an eight-week summer program teaming undergraduates with faculty to refine an existing course or develop a new course that incorporates environmental sustainability as an academic theme. Since ISAC’s start in 2012, 22 faculty and 12 students have participated, resulting in twelve revised courses and nine new courses. In the summer of 2015, an additional six faculty members and three students worked together via the ISAC program.

In spring 2014, the FRES Sustainability Office collaborated with Penn’s Center for Teaching and Learning (CTL) to organize faculty discussion groups on “What it means to teach through the lens of sustainability.” The discussion groups considered how incorporating sustainability as an intellectual framework into courses can help shape what and how one teaches.
The strategic planning, management, and operation of the non-academic property for the University falls under the responsibility of Facilities & Real Estate Services. Partnerships are the hallmark of the work of the Real Estate department in FRES: In collaboration with several real estate brokers, this department identifies opportunities for commercial, retail, and real estate development.

**Real Estate Highlights**

- **Square feet of retail offerings within the campus footprint**: 333,900

**REAL ESTATE DEVELOPMENT**

Penn’s Office of Government and Community Relations and the Office of University Communications relocated in May 2015 to the new building at 3901 Walnut. Offices from the Annenberg School for Communication moved in during summer 2015. The 30,000 sq.ft., six-floor building targeted LEED Gold certification. A retail tenant will fill out the ground floor and provide a significant building amenity.

**HUB 3939 Chestnut** is the 2nd phase of a mixed-use development project around the corner of 40th and Chestnut Streets. The first two floors feature retail and office space, with the top five floors offering 65 apartment units for rental, which include full kitchens, washers and dryers, air conditioning, and operable windows for natural ventilation. HUB 3939 is targeting LEED Silver Certification. Student tenants began moving in for the fall 2015 semester.

A May 2014 celebration marked the groundbreaking of **FMC Tower at Cira Centre South** – the final phase in the collaborative redevelopment of the U.S. Postal Service Facilities in Philadelphia by Penn, Brandywine Realty Trust and FMC Corporation. Brandywine and Penn have executed a long-term ground lease for the lot, as well as a 20-year lease through which Penn will occupy four floors and approximately 100,000 sq. ft. of office space at the tower.

The 49-story, 730-foot tall FMC Tower will include 10-foot floor-to-ceiling glass walls allowing for 360-degree panoramic views of the Schuylkill River, Center City and nearby green spaces such as Schuylkill Banks Park and Penn Park. Its 861,000 sq. ft. of
Penn alum Drew Crockett opened a coffee specialty food truck in 2009, growing in popularity and into a HubBub shop location in fall 2013 at 3736 Spruce Street.

Hip City Veg at 214 S. 40th Street offers a menu of fast-food inspired fresh vegan food including burgers, fries, salads, wraps, healthy drinks and desserts.

Federal Donuts expanded to University City at 3438 Sansom Street. Specialty donuts and fried chicken with a variety of seasonings and glazes are prepared daily.

Hand-drawn noodles and Japanese cuisine are featured at Chattime, located at 3608 Chestnut Street.

Nom Nom Ramen, winner of the 2012 Best of Philly award for ramen, opened in the food court at 34th and Walnut Streets with a menu of ramen, pork buns and shaved ice.

United By Blue Coffeehouse and Clothier at 3421 Walnut Street is a Philadelphia-based outdoor lifestyle brand, focused on sustainability.

The HELLO WORLD Home & Lifestyle at 3610 Sansom Street offers a selection of handbags and jewelry, gifts and accessories. The boutique has been awarded “Best of Philly” five times by Philadelphia Magazine.

The popular Philly Pretzel Factory moved into 3734 Spruce Street, along with Philly is Nuts! featuring bulk candy, chocolate, nuts, and dried fruit, in addition to fresh-baked Philly-style soft pretzels, pretzel hotdogs, pretzel sausages, and pretzel bites.
ARTS & CULTURE

The FRES Arts Portfolio unites a set of cultural assets that exist along the 40th Street corridor and elevate the quality of life for Penn and University City by providing access to the arts for multiple communities. The FRES Arts assets support the academic mission of Penn by providing laboratories for academic experimentation and learning beyond the classroom. The economic mission of the University is served as the arts form a strong co-tenancy for the vibrant retail destination that is 40th Street.

The Rotunda, at 4014 Walnut Street, serves as a community gathering space and venue for 300-plus events each year: live music, film, spoken word, theatre, art exhibitions, dance, yoga, lectures, support groups, parties, and afterschool programs.

For the first time ever, The Rotunda held a site-specific sound artist residency in the Sanctuary space. Local artists created sound and video installations honoring the unique architecture of the Sanctuary, with public performances and exhibits in October 2014. The Rotunda received a 2013 Philadelphia Knight Arts Challenge Grant to produce Sanctuary.

The 40th Street Summer Series continues to grow, now in its 11th year of bringing local and global entertainment to University City. The free, family-friendly concert series is hosted monthly May – September by University City District, Penn, and The Rotunda on the green space behind the Walnut Street Library at 40th Street. In 2015, the schedule expanded to include dance and live theater in addition to music. An estimated 350-450 people attend each performance.

The 40th Street Artist-in-Residence (AIR) program, part of FRES’ arts portfolio, awards West Philadelphia artists one year of free studio space at 40th & Chestnut Streets. In exchange, residents share their talents within West Philadelphia by leading workshops, teaching classes, exhibiting, and other community outreach. A diverse range of artists is chosen for the program, working in painting, collage, photography, installation, illustration, and video. A 2014-2015 AIR participant, Brujo de la Mancha, was highlighted in the April 13, 2015 issue of AL DÍA magazine.

For the fifth year in a row, the 40th Street Artist-in-Residence Program has partnered with Neighborhood Bike Works (40th and Locust Walk) on a youth kinetic sculpture class in Spring 2015. The culmination of this class took place at the Kensington Kinetic Sculpture Derby, where the class members and AIR artists rode their creations.

For the past two years, local artists and 40th Street AIR alumni and current residents have displayed past works as well as site-specific installations displays in the vacant storefronts along 40th Street from Chestnut to Ludlow Streets. Paintings, sculpture, and art from found materials have brought color and interest to the block awaiting redevelopment.

The Rotunda hosted four productions with multiple performances for the Fringe Arts 2014 Festival, an annual 17-day celebration that fills Philadelphia’s neighborhoods with more than 1,000 curated and independently produced contemporary performances. These included: Sephoria: Earth’s Revenge by Fantasy Weavers Original Opera for Children and Adults, Snyder v. Phelps - The Musical, Mount Airy Home Companion, and Poe-a-thon.
The Pennovation Works, formerly known as South Bank, is a unique blend of offices, labs, and production space being developed by The University of Pennsylvania to bridge intellectual and entrepreneurial initiatives for advancing knowledge and generating economic development. The 23-acre property adjacent to Penn’s campus will accommodate tenants in state-of-the-art facilities, including researchers, entrepreneurs, and industry partners solving real world problems and translating inventiveness into viable ventures.

A number of University, small businesses, and non-profit groups have leased space at Pennovation Works in existing buildings that have undergone minimal renovations and site improvements. The Real Estate team actively pursues tenant prospects with needs for office, developmental, research, or warehouse space aligned with the master plan for the site.

The Pennovation Works will be anchored by the Pennovation Center, a new business incubator and accelerator that will provide lab space and a hub for collaboration and the exchange of ideas for innovators from all disciplines. Intended to marry entrepreneurs with an expert workforce and scientifically advanced facilities, a key feature of the Pennovation Center will be common creative spaces, including co-working areas, a cafe, and a venue for events and programs. The 58,000-square-foot, three-story facility received design development approval from the Penn Board of Trustees in February 2015. Shortly afterwards, a site operator was selected enabling the forward movement of marketing planning for the Pennovation Center, scheduled to open in summer 2016. Among the first public communications related to the Pennovation Works is an online landing page launched in February 2015. The landing page will be developed into a full content website by early 2016.
In FY15, the University marked 10 years of accomplishments of Penn Connects, a campus development plan revealed in 2006 and updated in 2011 as Penn Connects 2.0. The Plan was visioned in response to the Penn Compact and the campus-wide opportunities presented by the acquisition of the former US Post Office Building at 30th and Market Streets, the Post Office Annex, and 14 acres of land along the Schuylkill River. In 2015, we find a University transformed by connectivity, environmental sustainability, and educational growth.
PRINCIPLES

- Plan for the entire campus
- Focus undergraduate experience in the campus core
- Build a vibrant urban experience linking to Center City
- Develop in phases over time

PRIORITIES

- Teaching & Research Facilities
- Open Space
- Recreational Facilities
- Housing
- Retail & Amenities
- Integrated Connections

INVESTMENTS IN PENN CONNECTS TOTALED NEARLY $3.8B FROM PENN, PHILANTHROPIC SOURCES, AND THE PRIVATE SECTOR.

- Penn and Philanthropic sources investments: $2.7B
- 26 new buildings
- 3.5M square feet
- 16 renovated buildings
- 1.5M square feet
- 3 new and renovated open spaces
Facilities & Real Estate Services continues to improve the ways services are delivered on the campus through the introduction of new programs and technology and a focus on continued process improvement. For the purpose of maintaining Penn’s historic campus buildings and landscapes, and infusing elements of environmental sustainability into all projects, FRES provides education, incentives, and in some cases, seed money, to schools and centers to raise interest in getting work done.

Facilities Operational & Process Improvements

$200M FUNDING PROGRAMS

Maintenance and renewal of the University’s physical assets requires collaboration between FRES and Penn’s schools and centers, and use of funding programs that enable much of the work to get done. The new CENTURY BOND program funded a number of upgrades during this fiscal period. Other FRES programs include the Energy Reduction Fund (ERF), the Matching Facilities Renewal Fund (Matching FRF), and the Recommissioning program.

With the intention of bringing existing buildings back up to the level at which they were designed to operate, the RECOMMISSIONING PROGRAM evaluates facilities and then recommends maintenance and repair. In FY14 and FY15, the program had been expanded to increase the number of buildings under review in order to meet the recommendations of Penn’s Climate Action Plan 2.0:

- Recommission the top 20% of the buildings that have the highest energy use every five years and complete a deep energy retrofit by 2042.
- The remaining 80% of buildings will be recommissioned on a ten year basis. Since the start of the Recommissioning Program in 2007, 647 ESOs (energy saving opportunities) have been listed.

Energy efficiency improvement projects continue to be supported through the Energy Reduction Fund – a self-sustaining fund in which the dollar savings generated by these projects is reinvested to fund future ERF work. There were fewer ERF projects in FY14 and FY15 due to the focus on using Century Bond funding to cover this type of work, especially in larger, building-wide renovation projects. FRES began studies in FY15 of 13 buildings to identify and prioritize potential energy-saving projects.

Portion of Penn’s Century Bond $300M program directed towards financing energy efficient upgrades in lighting and HVAC, and deferred maintenance
OPERATIONAL & PROCESS IMPROVEMENTS

Following a successful implementation of LEAN PROCESS IMPROVEMENTS in 26 trades shops between 2009 and 2013, FRES has taken this method for streamlining the business process to Housekeeping. Led by staff representative within Housekeeping, they are examining how housekeeping services are provided, such as shift start times, service expectations, and areas of coverage.

FRES leadership determined after analysis over the past two fiscal years of the type and volume of work involved in the contracting process, a procurement manager will now be staffed in-house.

Operations & Maintenance promises that SAFETY is its number one priority. Nearly $2.6M was spent on life safety projects in FY14 and FY15, much of it in collaboration with the University’s departments of Environmental Health and Radiation Safety and Risk Management.

Focusing on the new goal to “become a world-class Facilities Management Organization” as defined by APPA’s Award for Excellence, the O&M organization has created its Mission, Vision, and Values. To brand this focus among staff, “O & M Excellence in Action” will be used throughout communications materials, presentations, and items such as badge lanyards.

In progress towards this long-term transformation to a “world-class” organization, O&M now counts among its accomplishments since FY08:

- **81%** increase in Preventative Maintenance
- **Approximately 5,600** hours spent on Lean Six Sigma Process Improvements
- **75%** reduction in Lost Work Day Incident rate (LWDI)
- **46%** average reduction in Work Order duration
- **$10** million/yr in utility cost avoidance
Working closely with Penn Information Systems and Computing, FRES has heightened its focus in the area of Information Security. A technical manager was added to the IT staff in order to help implement FRES cyber security initiatives. FRES IT has implemented policies and procedures to meet requirements for the PECO/Department of Energy Smart Grid grant and incorporated them into Phase 1 of the new SCADA system implementation. FY16 goals include evaluating where these policies can add value in our operational environment.

**SCADA** is a centralized computer management system that monitors the operation of critical campus building infrastructure. SCADA Phase 1 included the installation of two computer servers that manage College Hall, Houston Hall, Claudia Cohen Hall, Irvine, Duhring, Furness and Huntsman Hall and an additional server that provides a back-up site at Mod 7. Completion of this phase is expected in early 2016. Phase 2 is expected to bring an additional 17 buildings online over a one-year period.

Additional cyber security projects involved raising user awareness and included a Cyber Security Fair and a safe social media presentation delivered during Bring A Child to Work Day.

A major upgrade to our **Space Management** system was successfully completed early in FY15. This application serves as the source for building and room data used throughout the University. The added functionality and web-based platform of the new version allowed the elimination of a stand-alone tool used by Schools and Centers to update their space information.

The implementation of a new **Facilities Condition Assessment** application was completed in fall 2015. Expected results include improved data accuracy, increased detail related to the condition of Penn assets and building systems and enhanced data access and reporting. The application includes a mobile component that will enable the automated collection of building inspection data in the field. These improvements better support the annual Capital Planning process.

FRES IT continues to explore where mobile technology can improve current processes. This is in line with our “best fit” strategy to provide staff
with technology appropriate to their business needs. In FY15, three iPad pilots were conducted to determine whether the use of mobile devices in the field would result in greater productivity, process improvement, and customer satisfaction. FRES Landscape Architects are using the program **BG-MAP** on iPads to inventory trees and plants on campus. This has eliminated the need for them to collect data on paper and transcribe it later and allowed for photos to be taken and stored on location. Two iPads are currently being piloted for the execution of Preventative Maintenance work and Summer Turnaround in Housekeeping.

Enhancements to **E-Builder**, a capital projects management software used by FRES for all major construction and renovation projects, were undertaken in FY17 in anticipation of a pilot planned for FY16 that will enable collaboration between FRES and selected Architects, Engineers and Contractors. This pilot will automate the real time submission of documents at various phases of the project life cycle.

Opportunities to automate manual processes is an ongoing focus. The distribution of keys to campus rooms and vehicles is currently manual. To improve the ability to better manage and track this process, an automated **Key Management** system is being piloted. In FY16, the first secure box system will be in use by Housekeeping. The Key Management system will roll out across the remainder of Housekeeping and Trades in FY16 and FY17. The distribution of overtime is also being automated: Implementation of an **Overtime Management** system in Housekeeping pilot began by the end of summer 2015.
Among the Division-level goals for Facilities & Real Estate Services are sustained opportunities for professional development and staff recognition. All FRES staff benefit from courses on emotional intelligence, conflict resolution, negotiations, and organizational skills, among others, as well as technical and compliance training, and improved standardization and automation of human resources processes. Recognition programs encourage peer-to-peer acknowledgement as well as appreciation from leadership.

**STEP-UP**, FRES’ official recognition program, highlights, encourages, and provides a means to acknowledge FRES staff for exemplary behavior demonstrating: Safe Work Practices, Teamwork, Eminent Service, Pioneering, Urgent Action, and Proactive. STEP-UP awards are announced each quarter – 124 in calendar year 2014, and 54 in calendar year 2015 as of June.

Penn’s Models of Excellence Program was introduced in 1999 to recognize notable staff member accomplishments at Penn that reflect initiative, leadership, increased efficiency, and a deep commitment to service. Introduced in 2014, the Pillars of Excellence Award recognizes the strong foundation and important support Penn’s weekly-paid staff members provide to promote the University’s success.

In 2014, a Pillars of Excellence Honorable Mention went to housekeeper Lucyna Fortuna for her work in Penn Human Resources at 3401 Walnut Street. Lucy was nominated for how she “created an outstanding work environment for Human Resources staff through an extraordinary personal commitment to her custodial duties.”
A number of FRES staff were acknowledged in 2015. The Green Campus Partnership Team received a Model of Excellence Award for the above-and-beyond contributions of each group member in the achievement of integrating sustainability into coursework, community, and campus planning, design, and operations.

Honorable Mention went to the ARCH Team for collaborating on a solution to transform the ARCH building into a destination spot, bringing people together and fostering cultural diversity, awareness, education, and community.

The Singh Center for Nanotechnology Team was recognized for planning, designing, and constructing a state-of-the-art nanotechnology facility that engages the local, national, and global research community.

Michael Rosato of Operations & Maintenance received a 2015 Honorable Mention in the Pillars of Excellence category for playing a significant part in the day-to-day operations in the Franklin Building where safety and service is the top priority in his role as custodian.

The winter of 2013–2014 deposited 67.6 inches of snow on Philadelphia, requiring many hours of FRES Operations & Maintenance staff work to clear the campus and keep it safe and open for business. (For comparison, Philadelphia’s normal snowfall is 21.5 inches.) To thank the staff for their many hours of hard work, early arrivals, and even overnight stays, FRES management held an Appreciation Luncheon for O&M Teams for 2014 Winter Work in April 2014.

Held twice a year, a New Employee Orientation welcomes all new staff to FRES and introduces them to the executive directors of each FRES department. This meeting provides an overview of FRES mission and vision and where the work at FRES fits into University operations.

FRES’ Women in Management program brings together management-level female employees to offer mentorship, professional support, guidance, and encouragement. Female leaders from across the University are invited to speak on their career paths and offer advice to FRES women.

Kathleen Hall Jamieson, Dean, Annenberg School of Communication
Dawn A. Bonnell, Vice Provost for Research
Lynn Marsden-Atlass, Director, Arthur Ross Gallery, and University Curator

FRES holds an Annual Recognition Luncheon for those employees celebrating milestones in their years of service at Penn. In March 2015, FRES celebrated 18 employees with 25 Years of Service, five employees with 30 years, three employees with 35 Years of Service, and one employee with 40 Years of Service. At this luncheon, many FRES staff are recognized for Perfect Attendance, STEP-UP Awards and their volunteer involvement with FRES Engagement Committee or FRES Boosters.

FRES BY THE NUMBERS

Total 167 Staff Employees
253 trades
504 housekeeping
*Plus contract employees and student workers

University City = 279 acres, 187 buildings
Pennovation Works = 23 acres, 29 buildings
Morris Arboretum = 92 acres, 33 buildings
New Bolton Center = 600 acres, 106 buildings
EMPLOYEE ENGAGEMENT

For nearly four years, the FRES Engagement Committee has coordinated year-round programs for FRES staff, encouraging participation in diverse activities within FRES and the larger Penn community.

Volunteers at Move In in August welcome students and their families as they move into Penn’s College Houses and manage any needed adjustments or repairs.

In December 2013, the Holiday Drive for Charity provided mother and baby items to the People’s Emergency Center in West Philadelphia. The FRES Holiday Celebration at the Left Bank featured an Ugly Sweater theme in December 2014; the addition of an Ugly Mug Contest raised donations for Greensgrow Farms and the Philadelphia Ronald McDonald House.

November 2013’s MoVember mustache-and-beard-growing-competition raised awareness and funds for men’s health issues. A September 2014 Buddy Walk, in partnership with Children’s Hospital, brought out 26 walkers to support Down Syndrome research.

Chili chefs at FRES brought out their best recipes in October 2014 for a Chili Cook-off with proceeds going to Philabundance and Cast Your Cares.

October also welcomed the annual FRES Halloween parade, inviting the Penn Children’s Center into the Left Bank for trick-or-treat.

Compliments Day opened 2015 at FRES, with an oatmeal breakfast and compliments wall in January.

Wellness became the FRES focus in February 2015 with a Go Red! Heart Health Awareness program and fundraiser benefitting the American Heart Association.

In Summer, all of FRES looks forward to the annual Summer Picnic, where all staff enjoy traditional cook-out foods, with cotton candy and snow cones as special treats.
In April 2015, the news spread quickly about the Capital Project Information Session for Minority- and Women-Owned Business Sub-Contractors in the Construction Industry hosted by FRES, Penn Medicine, and the Office of Government and Community Affairs. Attendance topped 175 and the event was covered by Philadelphia’s ABC affiliate, WPVI Channel 6. A number of general contractors were on hand to speak to sub-contractors in attendance.

In the fall of 2014, both Penn Medicine and FRES hosted ACE (Architecture, Construction and Engineering) mentorship teams. The Penn Medicine South Tower project and the New College House were used as the base projects for the exploration. The Penn teams include students from Mastery Charter–Shoemaker, Motivation High School, Universal Audenreid Charter High School, and the Science Leadership Academy.

Fourth graders from the Henry C. Lea School (4700 Locust Street) visited the Penn campus in November for an overview of Sustainability and Erosion: Land & Water as a real-world enrichment of their classroom studies on the subject. The students, teachers and chaperones toured Penn Park and Shoemaker Green while Landscape Architecture and Urban Parks staff explained about underground cisterns and specific landscape features of each location that assist with rainwater management. A trip onto Franklin Field introduced the group to artificial turf; this moment on the legendary football field was the day’s highlight for many of the schoolchildren on tour.

Many offices in the Penn community participate in Take Your Daughters and Sons to Work Day, a national program designed to expose girls and boys to what a parent or mentor in their lives does during the work day. In April 2014, the activities at FRES had an environmental sustainability theme, with a demonstration of compost tea used on Penn landscapes, and an introduction to helpful insects by the FRES Urban Park team and Landscape Architects. In April 2015, FRES hosted more than 75 kids at Adams Field in Penn Park for Be an Athlete for a Day, and about 20 ‘tweens’ participated in the Do’s and Don’ts of Social Media, presented by members of FRES IT department.

Economic Inclusion: FY2010-FY2015

Contracted and Workforce Participation Economic Inclusion Goals are incorporated into all Penn* contracts and tracked by an independent auditor on projects with construction costs more than $5M.

Contracting

**GOALS:** at least 25% of the work to Minority (MBE) or Women-owned business (WBE) enterprises

**RESULTS:** For approximately $196M of construction costs for the fiscal years FY2010 through FY2015, FRES averaged 33.5% in contracting dollars to minority or women owned businesses

Workforce Participation

**GOALS:** at least 20% of all construction hours worked to be completed by minorities or women

**RESULTS:** During the same time period, approximately 24% of all the construction hours worked were accomplished by minorities or women

Additionally, in the last three years, more than 30% of the workforce were Philadelphia residents and more than 5% were from the eight local zip codes in which Penn facilities are located.

*Figures do not include projects in the University of Pennsylvania Hospital System.*
In partnership with the filmmaking team in University Communications, the FRES Communications team produced several videos during FY14 and FY15. *Penn's Green Campus Partnership* (December 2013) provides an overview of the University’s approach to environmental sustainability planning.

For the celebration of the launch of Climate Action Plan 2.0, *Penn’s Climate Action Plan: Creating a Culture of Sustainability* (October 2014) described five years of “green” achievements. For the ceremonial groundbreaking at the Pennovation Center in October 2014, the video *Growing Ideas* was produced on innovation at Penn. In June 2015, *Penn Connects 2.0* captured how the University has been transformed over the last decade.

Summarizing a year’s worth of activities and achievements into one presentation is accomplished each year as the centerpiece of the FRES Annual Update Meeting held in June. A variety of metrics, benchmarks, photos, and videos are shared with all FRES employees in a series of meetings hosted by FRES Vice President Anne Papageorge.

A new interactive bicycle map was among a number of enhancements to the FRES website, facilities.upenn.edu. As the main hub for information from this division of the University, the FRES site includes campus-wide waste management guidelines, design and construction standards and policies, and systems for renovation and maintenance requests. An average of 22,000 unique visitors use the FRES site each month. In addition, a FRES Intranet is available for staff members only, accessible with PennKey and password.

An e-newsletter is distributed three times a year to all FRES employees with email addresses. This publication shares news from all departments of the division, cultural and arts offerings, and a list of employees who are new to FRES, retiring, or recipients of an award.

As campus development projects in the Penn Connects plan reached a ten-year milestone in 2015, the *Penn Connects* website, pennconnects.upenn.edu, was updated to capture this transformation. New project pages and an interactive map now better illustrate the 27.25 acres of new open space, 6 million square feet of new construction, and 2.4 million square feet of renovation added since 2006, representing a total commitment of public and private investment of $3.8 billion.

Active users of the *Green Campus Partnership* website learn about programs for students, staff and faculty, the University’s achievement of LEED goals, and stories about the people who make green programs.

News about the building designs, green spaces, renovation plans, construction projects, environmental sustainability initiatives and more from FRES’ five departments were internally communicated and externally promoted in partnership with University Communications. During FY14 and FY15, FRES shared its top stories with Penn publications, local radio, top media market newspapers, and local and national blogs, via three websites, two e-newsletters, and social media.
happen across campus. Media attention to the October 2014 launch of Climate Action Plan 2.0 introduced upenn.edu/sustainability to a new audience. On average, 2,500 visits are made each month to Penn’s sustainability website.

Distributed several times per year to a mailing list of more than 7,000, the Green Campus Partnership e-newsletter, Red & Blue On College Green, shares news about sustainability initiatives and upcoming events and programs across campus.

Look for Penn sustainability accounts on Facebook (Penn Green Campus Partnership), Twitter (@GreenPenn) and Instagram (@PennSustainability).

In the Headlines….

Changing Skyline: Co-working space that's funkier, cheaper
Philadelphia Inquirer
3/21/2015

Sustainability Programs at the University of Pennsylvania
WURD-AM The Green Hour
3/2015

Philadelphia’s New Boom
Philadelphia Magazine
3/1/2015

FRES Leads Penn’s Battle Versus the Snow
Penn Current
3/5/2013

Anticipating the Rebirth of Grays Ferry
Broad Street Review
1/28/2015

Transformations: 50 Things that Will Change Philadelphia in 2015
Philadelphia Business Journal
1/23/2015

The Nine Best New University Buildings Around the World
Architectural Digest
9/4/2014

Penn celebrates completion of $24.5 million renovation of Historic Arts, Research and Culture House
University City Review
2/5/2014

The Virtues of Restraint — Wall Street Journal's Best of 2013: Architecture
The Wall Street Journal
11/26/2013

Best Architecture of 2013: The Shortlist
The Denver Post
12/15/2013

High Tech, High Design
Architect Magazine
11/23/2013

Making the Grade: University Buildings
Architectural Record
11/2013

Brandywine Realty Trust and FMC Corporation Announce FMC Tower at Cira Centre(R) South
Wall Street Journal
10/31/2013

Changing Skyline: Singh Center enlivens Penn campus
Philadelphia Inquirer
9/21/2013

Keepin Penn’s Campus Cool
Penn Current
9/8/2013
A number of Penn building projects and sustainability initiatives have been recognized over the past two fiscal years. FRES proudly shares these with the University community on its website, facilities.upenn.edu.

**Silver Rating**

STARS — Sustainability Tracking Assessment and Rating System

2014 Effective & Innovative Practice Award

APPA-Association for Professionals in Educational Facilities Management


The Princeton Review

**ARCH**

Grand Jury Award

Preservation Alliance of Greater Philadelphia

Shoemaker Green

2015 Groundbreaker Award

Delaware Valley Green Building Council

Honor Award

American Society of Landscape Architects

Steinberg Hall-Dietrich Hall

LEED Gold Certification

U.S. Green Building Council

Weiss Pavilion

Merit Award for Building Additions or Adaptive Reuse

Society for Campus and University Planning

Education Commons in Weiss Pavilion

Honorable Mention — Academic Libraries under 30,000 sq.ft.

Interior Design Association & American Library Association

Green Power Challenge Ivy League Conference Champion

U.S. Environmental Protection Agency (EPA)
Krishna P. Singh Center for Nanotechnology

**Award of Excellence — Institutional**
American Institute of Architects New York State

**Project of the Year, Best Higher Education / Research Project, 2014 Best Projects of the Mid-Atlantic**
Engineering News-Record Magazine

**New Best Education Building of the Year**
Architect Magazine

**First Place — Higher education projects over $20 million**
Construction Management Association of America Mid-Atlantic Chapter

**Excellence in Structural Engineering Award**
Structural Engineers Association of New York

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**Special Mention — Higher Education Institutions & Research Facilities**
Architizer A+Awards

**Innovative Design in Engineering and Architecture with Structural Steel Awards — Projects Greater than $75M**
American Institute of Steel Construction

**LEED Gold Certification**
U.S. Green Building Council
Leadership

Division Leadership
Anne Papageorge
Vice President

Office of the University Architect
David Hollenberg
University Architect
Daniel Garofalo
Environmental Sustainability Director
Chris Hanson
Data and Document Manager
Mark Kocent
Principal Planner
Robert Lundgren
University Landscape Architect
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L&I Coordinator

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Executive Director
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Dennis Flannery
Operations Manager
Laura Park-Smith
Director, Portfolio Management
Paul Sehnert
Director, Development Management

Operations & Maintenance
Ken Ogawa
Executive Director
James Bean
Director, Labor Relations
Mike Fohner
Director, Trades
John Hopler
Woodland Director
Paul Ostrander (Retired Jan. 2016)
Locust Director
Betsy Robinson
Special Projects
Ben Suplick
Director, Engineering & Energy Planning
John Zurn
Director, Century Bond

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Published and Designed by Communications Team
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Lynda Cloud-Weber
Graphic Designer
Office of the University Architect
Credit for Photography: Tom Crane Photography, ESTO, Stuart Watson Photography, Penn University Communications, Carol XYZ