

ACHIEVING GREATNESS

***Stories behind some of the best
sustainable real estate of 2016***

PNC Financial Services Group
The Hertz Corporation
The Brando Resort
George Washington University
U.S. Department of State OBO

Paladino^{•••}

Abundance in action

Organizations from every sector are going further, faster with Paladino and Company.

In 2016 we had the privilege of teaming with creative and visionary companies that have delivered the previously unimaginable.

We've collected stories that represent the best and brightest accomplishments in sustainable real estate.

Among their achievements:

- Used sea water to cool a luxury resort as part of a Net Zero project in the middle of paradise
- Welcomed employees to the greenest high rise in the world, where every employee on every floor has access to fresh air and sunlight
- Used a building as a teaching tool, showing students of public health what a healthy space truly looks and feels like
- Became an ambassador for U.S. sustainability around the world through a 20,000 building portfolio.

All of this is made possible with team collaboration and Abundance Thinking.

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The Tower at PNC Plaza

Pittsburgh, PA

www.pnc.com

The greenest high rise in the world

Results

LEED Platinum certified

Awards:

BD+C, Building Team Awards
AIA SF, Design Awards, Sustainability
ENR-Mid Atlantic, Best Office Project

“Aside from the technology and the ambitious goals we set, one of our ultimate goals is that we can exemplify the business case for green building and sustainability; and to push sustainability even further to other companies and how they do business.”

Angelica Ciranni
Sustainability analyst
PNC Bank

“PNC’s sustainability achievements have differentiated us in the marketplace,” said Gabler. “Eighty-six percent of employees say PNC’s environmental commitment gives them an additional sense of pride in working for the company. Our sustainable achievements provides a competitive advantage in attracting new business, as well as attracting new talent, especially millennial hires.”

Technology and Features

Double-Skin Facade: The Tower at PNC Plaza’s most innovative green technology is its double-skin façade. The façade is the country’s only fully-automated double-skin façade that is part of a solar-assisted natural ventilation system.

The Beacon: An iconic sculptural installation located in the tower lobby that uses real-time data to reflect the building’s performance.

Solar Chimney: The largest in a modern office building in the U.S., the solar chimney and double-skin façade create a cycle in which fresh air enters the building, naturally warms, rises through the shafts, and exits at the roof skylight.

Energy Recovery Wheel: Adaptable to the season, the energy recovery wheel efficiently humidifies, de-humidifies, heats or cools air before it enters the building.



The Tower goes beyond standard green building

What does it mean to design and build the world's greenest high rise office tower?

The Tower at PNC Plaza sets this precedent, bringing to life the vision of The PNC Financial Services Group (PNC), a leader in the green building industry. The Tower was made possible by PNC's partnership with architect Gensler and sustainability consultant Paladino, and engineering firm BuroHappold, among many other valued partners and consultants.

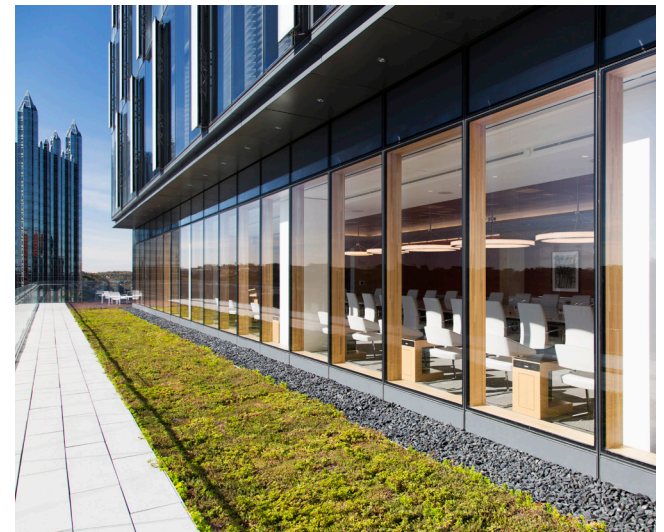
What tangible value does a Fortune 500 company like PNC find in sustainability when pursuing an unprecedented green ambition? The company's LEED Platinum certified commercial office headquarters embodies PNC's dedication to environmental stewardship, and also its commitment to innovation, the community, and its employees.

"PNC is a main street bank, and fundamental to this identity is our desire to continually drive positive change and be a better corporate citizen," said PNC's Benson Gabler, Vice President and Manager of Corporate Sustainability. "Doing business with integrity has helped us thrive in the past, and inspires us to always do what's right. Even as the industry evolves and brings new challenges, through sustainability we remain

committed to helping customers achieve their goals, empowering employees to grow, and strengthening our community - all while respecting and minimizing our impact on the environment."

Paladino worked with PNC and the integrated design team to identify key performance indicators for each pillar, develop sustainability approaches, and articulate design criteria. This interactive process of setting goals, establishing criteria, and then validating the building's performance through concrete indicators creates a dynamic relationship between the building, the occupants, and the community.

"Much of The Tower at PNC Plaza's success can be credited to the strong working relationship with Paladino and the rest of the project team. Not only did our partners share our vision for the Tower, they worked tirelessly to create a great and healthy working environment for nearly 2,000 employees." said Benson Gabler, Vice President and Manager of Corporate Sustainability.





Unprecedented features

The Tower offers brightly lit two-story “living rooms,” collaborative spaces, outdoor terraces, observation decks with views of downtown Pittsburgh, and an indoor park on the 28th floor.

While the Tower’s innovative features are impressive in the industry – like its breathable, occupiable double-skin façade, radiant floors, and solar chimney – each design decision came down to its impact on the community and PNC employees. The Tower provides daylight and natural air for everyone, with the exterior wall of the double-skin façade featuring series of air gates that open automatically to vent the 30-inch deep façade cavity and admit outside air into the Tower. The interior wall has automatic louvers for natural ventilation, and manually operated doors that allow occupants to step outside for fresh air on any floor. The Tower’s passive ventilation strategy contributes to the Pittsburgh skyline; provides building occupants with fresh air to support a healthy workplace; and is highly energy efficient.

Engaging the occupants

“We have received so much positive feedback from employees,” said Angelica Ciranni, Sustainability Analyst at PNC. “We had 2,000 employees move from legacy spaces with high cubical walls and large workstations into the Tower, where the layout is significantly more open. We expected some growing pains, but for the most part, people have been enthusiastic – especially about the natural sunlight.”



PNC knew that informed employees were the link to make sure the building meets its performance targets, so they formed the Green Ambassador (GA) program. “We had 130 people – more than 5% of building occupants – volunteer for the program. We have ambassadors on every floor,” said Gabler. The GAs receive additional training regarding the sustainability features of the building so that they can educate their colleagues, use key green features, and keep the building performing as intended.

Ultimately, the Tower’s features and technologies contribute to beyond LEED Platinum certification and significantly reduce energy and water consumption in comparison to a typical office building. But to PNC, the Tower is about the overall impact it can make in the industry.

“Aside from the technology and the ambitious goals we set, one of our ultimate goals is that we can exemplify the business case for green building and sustainability; and to push sustainability even further to other companies and how they do business,” said Ciranni. “The Tower is a showcase that demonstrates that you can be extraordinarily green in a way that makes business sense.”

The Tower's sustainability performance criteria were developed around three value-based pillars

The Tower goes beyond standard green building certification by adding first-time sustainable innovations and technologies. As strategic green building advisor, Paladino was instructed to push the approach beyond even the best practices of LEED Platinum, developing and aligning sustainability performance criteria around three pillars that reflect PNC's values:



Community Builder: Support Pittsburgh's existing infrastructure, spur development and business growth downtown, and accentuate the skyline as a symbol of PNC's commitment to the city's sustainable future.



Energy Responder: Respond to Pittsburgh's climate by aggressively pursuing strategies and technologies that minimize resource use and maximize renewable energy opportunities.



Workplace Innovator: Attract tomorrow's leaders to Pittsburgh through innovative space planning and building systems that promote collaboration and productivity, and set the bar for a healthy indoor environment.



Hertz Global Headquarters

Estero, FL

www.hertz.com



**Resilient
business
is good
business**

Results

LEED Gold certified
Improved employee productivity
Improved employee health and wellness
Thriving micro-habitat
4-star Certified Green Restaurant
43.6% energy cost reduction

“Environmental sustainability is crucial to the success of our business, both from an economic perspective, and as a responsible employer and community partner.”

Alex Marren
Executive VP of U.S. Rent a Car Operations
The Hertz Corporation

“Our green building achievements have supported a new way of looking at sustainability for people in all areas of the company – from how our facilities teams remodel locations to how we choose locally-sourced options in our headquarters’ cafeteria. We held a sustainability challenge recently, and over 3,000 North American locations are focused on reducing overall energy consumption by 5 percent within the next year through simple actions that add up to big results: turning off lights, keeping thermostats at reasonable levels and the like. We have already seen improvements in energy consumption, as well as commitment throughout the company for a more environmentally sustainable workplace.” Alex Marren



Setting a national example

It's quite the feat to move a global corporate headquarters of 28 years into an entirely new space and new state over 1,200 miles away. Hertz Global did just this, and using sustainability as a driver for success, did it with aplomb.

In spring of 2016, Hertz moved from Park Ridge, New Jersey into its new LEED Gold headquarters in Estero, Florida. The new headquarters would be home to its Hertz, Dollar, and Thrifty corporate employees, all in one location for the first time. No longer situated in a dense, urban location, the new campus was constructed near Estero Bay, a lush, lively aquatic preserve.

For the employees that made the move, expectations about the space, design and functionality were high, and Hertz made sure to deliver on them. The new campus needed to showcase this iconic company's global brand, known for its flexibility and variety, with sustainability as the star player.

"At Hertz Global, we believe environmental sustainability is crucial to the success of our business, both from an economic perspective and as a responsible employer and community partner," said Alex Marren, Executive VP of U.S. Rent a Car Operations. "We are constantly striving to improve sustainability best practices around energy efficiency, emissions reduction,

waste reduction and recycling, and generation of renewable energy."

To create a space worth the move, Hertz and architect Gensler engaged Paladino to act as the LEED program manager and commissioning authority. Sustainability achievements would span beyond just the headquarters, which would serve as an example for Hertz's facilities nationwide.

"Achieving LEED Gold certification at our world headquarters is a symbol of our commitment and has generated momentum across the company," said Marren. "We are incorporating many of the environmentally friendly features of our headquarters into upgrades at other facilities, including LED lighting, low-flow faucets, and low- or no-VOC materials."

To ensure every sustainability strategy aligned with Hertz's aspirations, Paladino engaged in a number of eco-charrettes, an integrative and collaborative brainstorming session to harmonize the goals of the owner, architect and sustainability consultant. Through this process, the team established five sustainability pillars that best represented Hertz's goals. These pillars went on to act as the foundation for every decision of the project:



"What we've done so far is only our starting point for an environmentally sustainable future at Hertz Global."
Alex Marren

1. Resilience and Climate Change Preparedness
2. Habitat Protection
3. Energy: Efficient, Clean and Renewable
4. Employee Health, Well-being and Balance
5. Smart Mobility

"We're excited about the many opportunities ahead to bring more sustainable features into our facilities and operations – from energy efficient tracking tools and building fixtures, to recycling standards, to simple acts of energy conservation," said Marren.

Planning ahead

With a very different landscape from its former New Jersey home, understanding the regional issues and threats was critical, which is why a key pillar for the development was resilience and climate change preparedness. Florida is one of the most vulnerable states in the nation in regards to climate change and rising sea levels. The campus site is located just 15 feet above sea level, and is in a category 5 hurricane prone location, so Paladino integrated innovative strategies to withstand floods, tsunamis, and other intense weather events. Adding to the headquarters' resilience and efficiency, Hertz achieved a 43.6% energy cost reduction over baseline by installing renewable energy sources, including more than 2,300 solar panels installed on the parking garage roof, and integrating energy conservation measures.

"We have seven locations with solar panels that generate more than 1 million kWh of energy per year," continued Marren. "At our world headquarters, these panels deliver approximately 15 percent of the building's energy."

With resilience in mind, the facility is designed as a refuge during hurricanes and can be self-sustaining off-grid for up to 48 hours thanks to the solar panels and a site-wide rain harvesting system, allowing for 80 percent less potable water use than a typical office building. Additionally, a clean, curved façade reduces structural loading from wind during major weather events like hurricanes.

Attracting the best talent through wellness

Of utmost importance was optimizing the space's design for everyday use. Sustainability strategies and features would provide Hertz employees with the best working environment while supporting top talent recruitment.

The integrated team prioritized quality and collaborative workspaces, daylighting, and optimal indoor air quality in every design and review. Natural daylight is abundant throughout the interior office space, complemented by an open floor plan to foster both collaboration and heads-down focus. Every detail, from warmth to acoustic comfort were analyzed and adjusted to suit each space to its use. Because employee comfort matters, materials were selected for the

building's glass façade that limit heat from the sun and reduce the need for air conditioning. And indoor environmental quality is superior thanks to high efficiency HVAC filtration; low volatile organic compound (VOC) paints, coatings, adhesives and sealants; and low emitting indoor finishes and furniture.

Hertz also encourages fitness and work-life balance by providing lounge areas, a fitness center and classes, and onsite child care at its headquarters. Hertz promotes healthy and sustainable eating habits too. The on-site cafeteria is one of the first 4-star certified Green Restaurants in the world, and provides healthy, organic and local food including vegetarian and vegan options, which is composted onsite.

Most importantly, a green building education program is offered to all new hires to make sure the building and sustainability features are used to the fullest potential. The comprehensive sustainability program has changed the perspective of the employees, and engaged the team in a way once not imagined.





The Brando Resort

French Polynesia

www.thebrando.com

Luxurious and sustainable: The Power of nature prevails

Results

LEED Platinum certified
Near net zero energy and water
50% of the project site is protected
100% of waste water is recycled
100% of irrigation water from rainwater
Harnesses ocean water for cooling

"We are tremendously proud of the conservation and sustainability accomplishments we have made here at The Brando. We hope the resort serves as a prototype for sustainable development in the hospitality industry and for tropical islands around the world."

Richard Bailey
Chairman and CEO
Pacific Beachcomber

A unique sustainable vision becomes reality

Marlon Brando first came to Tetiaroa, an atoll composed of a dozen small islands in French Polynesia, while filming *Mutiny on the Bounty*. In 1967, Brando purchased Tetiaroa and aspired to preserve the atoll's natural beauty, biodiversity and cultural richness. He was determined to find a way in which it could be a center for research and education as well as a model of sustainability for the rest of the world.

In 1999 he asked Richard Bailey, a long-time resident of Tahiti who shared Brando's passion for the environment and who created some of the region's finest resorts, to help him conceive a plan to achieve this dream. Together, Brando and Bailey, chairman and CEO of Pacific Beachcomber, pursued a vision of creating the world's first and foremost post-carbon resort—an island where innovative new technologies would enable a self-sustaining luxury environment for resort guests, residents and scientific research. The Brando is the legacy of this shared vision.

Today The Brando stands as a symbol of Brando and Bailey's vision: a luxury eco-resort built upon principles of conservation and sustainability. Visitors are struck by Tetiaroa's nearly pristine, spectacularly beautiful and delicate natural environment, once home

to Polynesian royalty, and unspoiled by commercial development. The Brando serves as a model of sustainable luxury to the world – a representation of sustainability and hospitality in perfect harmony.

Paladino was engaged as the owner's representative to assist in the program to obtain LEED Platinum certification by structuring the approach to certification; validating design, construction and documentation required for certification; and advising on compliance and documentation matters.

The strategies executed by Pacific Beachcomber ensured that Brando and Bailey's vision became a reality, represented the culture of Polynesia and protected and preserved Tetiaroa's delicate environment. The realities of the remote island location were that there was no access to basic infrastructure such as potable water, electricity, and waste water treatment. So Pacific Beachcomber needed to develop the infrastructure as well as the resort with minimal disruption to the small island on which the resort sits.



With Paladino's advice Pacific Beachcomber implemented sustainability strategies and technologies that bridged the infrastructure gap while providing the sumptuous comfort and amenities sophisticated travelers expect from a resort of this caliber.

HARNESSING NATURE

While sustainability was a crucial goal of the project, Pacific Beachcomber is a luxury brand and needed to avoid 'eco-tourism' strategies that detracted from the guest experience. All green techniques needed to support operational goals and enhance the guest experience.

Tapping into the bounty of the natural environment, design and sustainability strategies were chosen to create a sense of community and connect guests to the timeless power of nature.

The approach recommended by Paladino included balancing the use of sustainable technologies with minimally disruptive design and refinements to operations. Sustainable design fundamentals supplemented by technologies would produce the lowest impact to the site, while preserving the beauty of the natural environment and maintaining a

heightened visitor experience. A focus on passive strategies became the focal point of the strategy.

The hallmark attributes of the approach included:

- Preserve the pristine site. There was no construction over the water, which minimized site disturbance.
- Adopt a net zero sustainability strategy by designing systems that consume no more energy or water than they produce or that can be locally harvested.
- Refine the materials palette to include as many local materials as possible, and create opportunities for local industry development.
- Create a carbon neutral transportation strategy that offsets all transportation emissions created as a result of the remote location and difficult access to the project.

"Our vision is now a reality," said Richard Bailey, Chairman and CEO of Pacific Beachcomber. "We are tremendously proud of the conservation and sustainability accomplishments we have made here at The Brando. We hope the resort serves as a prototype for sustainable development in the hospitality industry and for tropical islands around the world."

The combination of features and systems resulted in a world-class destination with near net zero energy and water. The Brando is the first project to earn LEED Platinum certification in French Polynesia, demonstrating its extraordinary sustainable achievement.





Passive sustainability creates abundant beauty

Through thoughtfully aligned sustainability strategies and using the natural environment, the visitor experience was enhanced while the delicate ecology of Tetiaroa was preserved. Some of the innovative passive and active sustainability features include:

Energy optimization: A pioneering Sea-Water Air Conditioning (SWAC) system uses deep sea water to cool the resort, which is pulled from the sea 3,000 feet deep at 39 degrees. The water cycles in a closed loop flowing through the property, and is then returned to the sea. Paladino advised on the optimal system size to help achieve the net zero goal through energy modeling analysis. Additionally, automatic lighting and fan controls in guest villas minimize unnecessary energy use.

Water efficiency: The entire resort operates from a closed loop, net zero water system. Sea water is pumped into the lagoon and desalinated into fresh, potable water. This is supplemented by rainwater harvesting and the use of a fresh water natural reservoir. Paladino's water cycle studies validated that demand on the lens does not exceed replenishment through natural sources as determined by occupancy projections.

Water treatment: The resort's waste water treatment system is filtered through decantation and artificial tides, and purified by aquatic plants and UV rays that destroy bacteria. Because of the sensitivity of the environment,

the process uses minimal chemicals, and those that are used are eco-friendly.

Renewables: More than 90% of electricity demand is provided by 4,000 photo voltaic solar panels lined along the island's private airstrip, with an estimated energy production savings of more than \$400,000 per year. Water is heated through solar boilers installed on villa roofs, and 40 batteries in the power plant supplement the renewable system along with six backup generators fueled by natural coconut oil. All the coconut oil is shipped from Tahiti and bought from a local cooperative, supporting the local economy and families on remote islands who depend upon coconut oil production.

Passive conditioning: Paladino facilitated a climate-responsive design and building orientation that would maximize sustainability efforts through daylighting, natural ventilation and harness prevailing tropical breezes for energy-free cooling, as well as implementing native design features such as thatched pandanus roofing with shade overhangs.

Materials: The Brando used local materials extensively in the design and construction. All building materials are of local or certified origin, renewable, or incorporate recycled components.

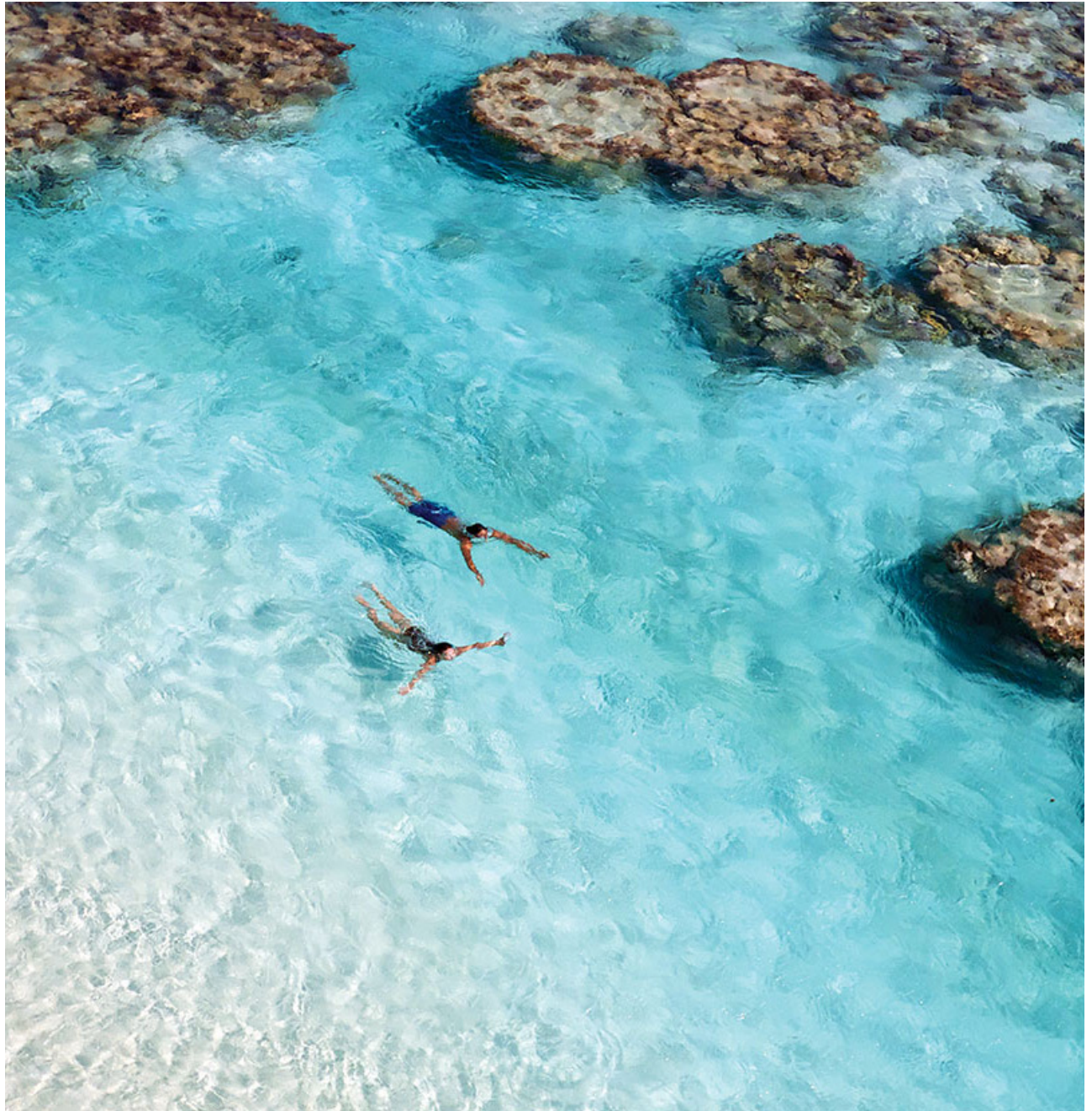
Natural food production: An organic garden grows fruits and vegetables onsite so that guests can enjoy fresh organic products that have not been altered by pesticides, storage,

or transportation. Crushed green waste and fertilizer produced by food waste digesters are mixed and turned into compost to amend the sand-and-coral soil. Thirty-five beehives with exceptional returns produce all the honey served at The Brando.

Conservation and Eco-Education: Tetiaroa Society, a nonprofit environmental organization that Richard Bailey helped put together with local scientists, conservationists and the owner of the atoll, provides an ongoing and permanent program for conservation, scientific research, cultural understanding and sustainable use of the atoll. Resort guests can participate in nature tours and a green tour to learn about The Brando's eco-friendly systems.

Awards

The resort has been awarded numerous accolades for its dedication to preserving the natural environment of Tetiaroa, including the Golden Turtle Award for its superior recycling and waste management program in French Polynesia; the Virtuoso 2015 Best of the Best Sustainable Tourism Leadership Award - Hotels; a Gold Magellan Award for Hospitality Overall: Eco-Friendly "Green" Resort/Hotel from Travel Weekly; and Best Eco-Tourism Property from Luxury Travel Magazine as part of its 2015 Gold List. In July 2016, The Brando was named the #1 resort in the South Pacific by readers in the Travel + Leisure World's Best Awards.





The Milken Institute School of Public Health

Washington DC

An education in wellness

Results

LEED Platinum certified
Successful teaching tool about the benefits of wellness in the built environment

Awards:

USGBC-NCR Project of the Year: New Construction Award
SCUP/AIA-CAE Excellence in Architecture, New Building Merit Award
IIDA New England, best Education Design
AIA DC, Award in Architecture

Milken Institute School of Public Health

THE GEORGE WASHINGTON UNIVERSITY

The teams collaborated to ensure that the Milken Institute School of Public Health achieves the highest sustainability goals, using LEED Platinum as a framework.

This building contributes to the health, wellness, and learning of its inhabitants, and is a testament to the sustainability vision of The George Washington University.

“We had a vision for what this project could achieve, and Paladino kept everyone on the same sustainability page through an initial eco-charrette followed by integrated design meetings. The collaborative meetings narrowed our focus on the sustainability features that mattered most to GW, and that most benefit the building occupants. With GW's support, we were able to use this project to add value to the environment and community.”

Rachel Sowards, Executive Director for Paladino and Company



This is what wellness looks like

If you were asked to build a living model of health and wellness, what would that look like?

Located on Washington Circle, just a few blocks from the White House, the Milken Institute School of Public Health is a physical embodiment of the ideals of wellness. With views from its seventh floor, which are unsurpassed in Washington, DC, the \$75 million signature building, owned and operated by The George Washington University (GW), has become a landmark in downtown DC.

Founded in 1997, the School of Public Health was housed in the medical center for its first 15 years, and currently enrolls more than 1,700 students. In 2010, the university committed to building a separate facility to house the School of Public Health to bring the seven departments of the school together in one location, which would encourage collaborative learning and interaction among the faculty, students, and staff. To accommodate the expansion of the school, the new 167,000 square foot building has nine floors comprised of classrooms, conference spaces, student common areas, and faculty offices.

In recent years, GW has committed to building to a minimum standard of LEED Silver certification on all new construction

projects on campus. GW leadership wanted the Milken Institute to go further, with focus on a healthy workplace and energy and resource efficiency that would align with the university's long-term environmental goals. So GW and the project team chose to pursue LEED Platinum certification, USGBC's highest rating, to exemplify the school's far-reaching commitment to sustainability.

Over the course of the design phase, the project team worked closely together to create a collaborative integrated process to guarantee that everyone, including multiple design and construction consultants, understood the sustainability goal and necessary steps to ensure that the Milken Institute School of Public Health would achieve the highest sustainability goals using LEED Platinum as a framework.

As a progressive academic work space, every feature of the building was carefully designed to promote the mental and physical wellness of its occupants. The design team incorporated many metering and tracking devices, including CO2 monitors, to maximize the air quality within the building. Large open spaces intermixed with pod-like classrooms ensure maximum air flow. Teams created synergy between energy,



water, and resource efficiency, including: storm water recovery; use of responsible materials; contemporary technology; and lighting design. Unlike the typical separation between offices and classrooms, the building design combines work and learning spaces on each floor around a central sky lit atrium to promote interaction between faculty, staff, and students.

To encourage building occupants to get moving, the central architecture feature is an open, sky-lit central staircase. The staircase visually connect all the building's floors, and actively invites visitors, staff, and students to walk instead of taking the inconspicuous elevators.



In addition, all faculty offices feature hydraulic standing desks that can be raised and lowered throughout the day. Students are provided with informal study and meeting areas, purposefully placed along the outer walls with exceptional views overlooking Washington Circle.

Additional health and wellness features include a yoga studio and two gyms on the B1 level, which houses the student teaching labs for the Department of Exercise and Nutrition Sciences.

Sustainability has become a core value of the school. It is reflected daily in the ongoing healthy personal interactions between students, faculty, staff, and visitors and the many impromptu meetings that occur throughout the building. For the students, the second floor where admissions and student services is, features healthy vending machines, media room, and many study areas that buzz with activity throughout the school year.

GW wants people to be healthy when they are on their way to campus, too. Specific design elements and site selection encourage active commuting of building occupants. The school's central downtown location promotes a walkable, healthy living vision. Close proximity to a major DC Metro stop and five different bus lines encourages the use of public transportation over single vehicle commuting. Finally, the building offers interior and exterior bike racks and shower facilities for cyclists.

Additional sustainable features and technologies to support a healthy facility

include indoor and outdoor landscaping with native and adaptive plants such as snake plants (*sansevieria trifasciata*) located in the planter located between the first and second floors, and a green roof planted with sedum to reduce heat island effect. Rainwater is captured on site, enhancing storm water runoff management and reducing potable water consumption by more than 40 percent below the standard for commercial buildings.

With much effort and careful design, the Milken Institute School of Public Health received LEED Platinum certification, making it DC's first university academic building project to be awarded the top rating. For George Washington University it was not a trivial decision to choose LEED Platinum - it stands as a symbol of their leadership and progress in the field of public health. It is hoped that buildings incorporating this vision and these high standards will contribute to the accomplishments and innovative work that will come from its students, faculty and research teams.

The building has become a teaching tool since opening. GW has created a comprehensive sustainability and wellness educational program using the building as a focus, including an interactive digital display, student and visitor education, case studies, and research promoting environmental health benefits - all of which help to progress green building development.





U.S. Department of State Overseas Buildings Operations

**A global
ambassador
for resilience**

Results

Brought sustainability to 20,000 buildings in 190 countries
Comprehensive and standardized sustainability strategy
Overcame global challenges to track sustainability performance at scale

“Sustainability is a unifying factor. Higher performance buildings lead to a higher level of work and better performing facilities, and ultimately represent the mission of the Department of State.”

Donna McIntire-Byrd
Chief, Energy & Sustainable Design
U.S. Department of State OBO

Sustainability gives edge to a resilient mission

The U.S. Department of State Bureau of Overseas Buildings Operations (OBO) manages 275 missions worldwide including approximately 21,600 buildings. With a portfolio of this size and breadth, OBO's goals and challenges are diverse – with equally diverse sustainability strategies to support them.

To remain functionally resilient to execute and fulfill all the responsibilities that come with diplomacy, missions must provide and maintain a robust, durable, flexible, and adaptable infrastructure. OBO facilities are regularly used as places of refuge after natural disasters and bases for humanitarian assistance. They have served as “ground-zero” to provide logistical support for host country issues such as infectious disease outbreaks and provide critical services like medical care for Americans overseas.

Because the Department of State leads with a platform of excellence and eco-diplomacy, sustainability is critical to the success of each Department initiative: leadership by example; building excellence; energy efficiency; renewable energy; balancing water; sustainable transportation; and a solid platform for diplomacy.

With its rigorous sustainability goals and global reach, OBO's expansive portfolio is also Paladino's most diverse. OBO has worked with Paladino since 2007 to manage everything from improved energy performance, renewables, and LEED certification to defining net zero stretch goals and a comprehensive sustainability strategy deployed across its entire portfolio.

Eco-Diplomacy sets a global precedent

This year, Paladino supported OBO's seminar series on sustainable buildings, practices, tools, and resources that has enabled over 200 staff to act as eco-ambassadors for the United States, setting an example of sustainable leadership at over 150 posts.

“We know that the diplomatic facilities play a symbolic role,” said Chief of Energy & Sustainable Design of the U.S. Department of State OBO, Donna McIntire-Byrd. “We lead by example in tangible ways that address the administration's goals in terms of reducing greenhouse gas emissions and deploying renewable energy.”



In addition to benefitting the Department of State through increased efficiency, employee wellness, and resiliency, OBO's sustainable activities set the precedent for green building practices within the host countries. Out of OBO's 38 LEED certified projects to date, 20 were the first buildings certified in their nation.

“Our best practices set an example for new and different ways to address country's regional-specific issues,” said McIntire-Byrd. “OBO's actions and results serve as a global model to be replicated, and open opportunities for positive interaction and collaboration.”



Sustainability provides a lens into portfolio performance

In addition to its role in diplomatic relations and global representation, OBO is also – fundamentally – a real estate owner and operator. As such, OBO faces the same operational challenges as any other large-scale portfolio owner. They needed to improve operational efficiency, better understand the implications of their sustainable strategies, and create programs that can scale across building types, functions, and regions.

OBO's Excellence in Diplomatic Facilities initiative has aimed at developing and constructing a high-performance buildings projects for the next generation of diplomatic facilities.

"We have a diverse and wide-reaching portfolio. The Excellence Initiative challenged us to consider the entire portfolio rather than merely addressing sustainability building-by-building," said McIntire-Byrd. "We (the

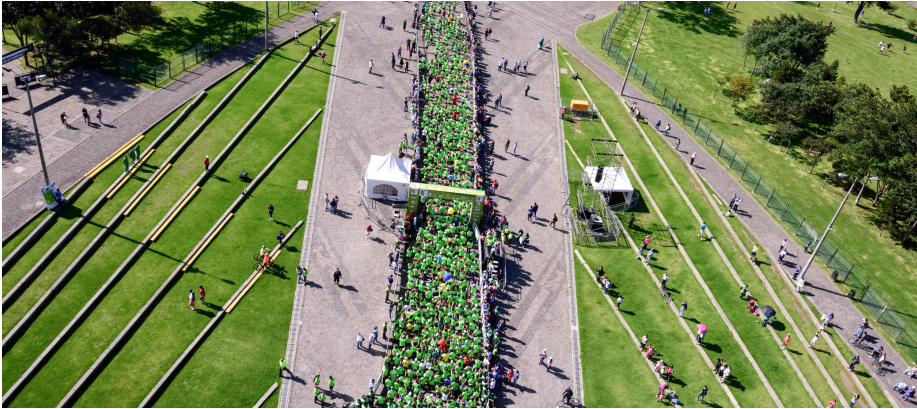
Department) own these buildings long-term, so we have a responsibility to consider the total cost, and sustainability became one of the essential drivers of life-cycle-cost analysis and operational resilience."

Informed people run posts sustainably

To effectively and sustainably operate its global portfolio, OBO needs an informed and empowered staff. Paladino developed a sustainability handbook, Guide to Green Embassies: Eco-Diplomacy in Operation (Guide), and Post Green Team Toolkit (Toolkit), which are now distributed around the world.

The Toolkit provides standardized guidance to over 150 post-led Green Teams and it includes tools and templates that staff can adapt for their post's specific climate, culture, and local environmental issues. With an informed team, sustainable features are better utilized, energy and water management programs are better run, and the team is motivated to teach and inspire others.

"Raising awareness of the myriad of impacts brought on by sustainability has been a major achievement," said McIntire-Byrd. "People often think of energy when it comes to sustainability, but educating our people through our Guide and Toolkit with deliberate emphasis on staff engagement has led to a broader understanding of sustainability. People at all levels better understand and recognize the opportunity in their role to make a direct impact."



A mission of resilience embedded in buildings

Sustainability has also given an edge to the missions of OBO and the U.S. Department of State.

OBO's mission is to "provide safe, secure and functional facilities that represent the U.S. government to the host nation and support our staff in the achievement of U.S. foreign policy objectives. These facilities should represent American values and the best in American architecture, design, engineering, technology, sustainability, art, culture and construction execution."

The Department's stated mission is to "shape and sustain a peaceful, prosperous, just, and democratic world and foster conditions for stability and progress for the benefit of the American people and people everywhere." It continues, "We invest in the shared security and prosperity that will ultimately better prepare us for the challenges of tomorrow."

To achieve the mission of a strong, resilient organization, the Department needs a strong, resilient infrastructure. Since 1999, as part of the Department's Capital Security Construction Program, the Bureau of Overseas Buildings Operations (OBO) has completed 133 new diplomatic facilities and has an additional 53 projects in design or under construction.

"Designed for sustainability" literally means designed to endure. OBO delivers safe, secure, and resilient facilities. Sustainable building strategies – thanks to passive energy systems, weather resistant building design, and an educated staff – ensure that the buildings and teams can withstand natural hazards and climate-related events so they can serve at the most critical times.

"OBO facilities are places of refuge around the world because of the codes and standards that OBO uses for the aftermath of the earthquake in Haiti

or Kathmandu, or the Hutu struggling with disease, our facilities stand up," continued McIntire-Byrd. "Host nations look to our facilities for services during catastrophes. That is crucial to our mission. Thanks to sustainable and resilient buildings, we can protect our people and give back to the region."

Sustainability unifies

With sustainability as a unifying factor among OBO's posts worldwide, higher performing buildings have led to improved employee productivity, and better performing, resilient facilities. OBO has worked with Paladino to ensure that sustainability is represented in infrastructure and entrenched in its everyday operations. Because of its myriad of sustainable achievements and vast reach, OBO is positioned to inspire sustainable, resilient action and environmental responsibility across the world.

Learn More

About Paladino and Company

With offices in Seattle, Austin, DC, and New York, Paladino and Company is a green building consulting firm that sits at the intersection of business, design, and sustainability. This is achieved through rigorous analysis and abundance thinking as a driving force for change.

We help organizations to improve the design and operations of their buildings to minimize costs, increase profitability, and enhance employee satisfaction by operating under a three-part framework:

- **Abundance** drives us to identify resources that are readily at hand, and to employ them to the best possible effect.
- **Attitude:** Our team has the experience and instincts to create change, bring people into the journey, and challenge conventional thinking.
- **Analytic rigor** that delivers an industry-leading program of exemplary quality by raising the bar, in an implementable and cost effective manner.

With more than 2,000 green projects internationally, including more than 730 LEED certified buildings, Paladino serves architects, developers, and owners in industries including commercial real estate, higher education, hospitality, industrial, multifamily and mixed-use.

Contact us to make a difference in your business, buildings, and people through your real estate.

www.PaladinoandCo.com

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