

A CLASS

APART



Members of the first class of Certified Green Garages offer sustainable materials, features, and management practices to embrace sustainability like never before, to the delight of their communities and customers.

By Bill Smith

It wasn't so long ago that "sustainable parking" was a bit of an oxymoron. But times change, sometimes drastically, and parking has embraced green practices. This year, seven facilities became the first in the world to earn Certified Green Garage designation—a milestone indeed.

IPI is proud to promote sustainability alongside the Green Parking Council and the Council's Green Garage Certification program. Likened to the "LEED of parking," Green Garage Certification is the world's only rating system defining and recognizing sustainable practices in parking structure management, programming, design, and technology. Sustainability is vitally important today, and the industry is leading the way by helping to make parking greener.

The first class of Certified Green Garages is impressive in its thorough adoption of green materials, amenities, and management practices that save resources, encourage drivers to think a little greener when they get around, and make parking more sustainable. Learn more about Green Garage Certification at greenparkingcouncil.org/certified-green-garages/certification.

CHARLES SQUARE GARAGE

OWNER: Carpenter and Company

OPERATOR: Propark America

Located in the heart of Harvard Square in Cambridge, Mass., the Charles Square Garage is the first hotel garage to earn Green Garage Certification. The garage is situated beneath a mixed-use complex that includes the renowned Charles Hotel, a commercial office tower, condominiums, a fitness center, and a spa. The garage courtyards offer public space to the densely developed community, hosting a regular farmers market, as well as an ice skating rink in the winter.

The Charles Square Garage's commitment to sustainability is apparent in its design. The structure promotes the use of energy-efficient vehicles, providing 10 small-car spaces; 12 to 18 (depending on the season) Zipcar carshare spaces; and four electric vehicle (EV) charging spaces that are offered to drivers for free. There is also a dedicated indoor bike storage area with room for 24 bicycles, and the hotel has its own bicycle lending program with six bikes.

The structure is also designed for reduced energy use. High-efficiency LED lighting provides both efficiency and heightened illumination.

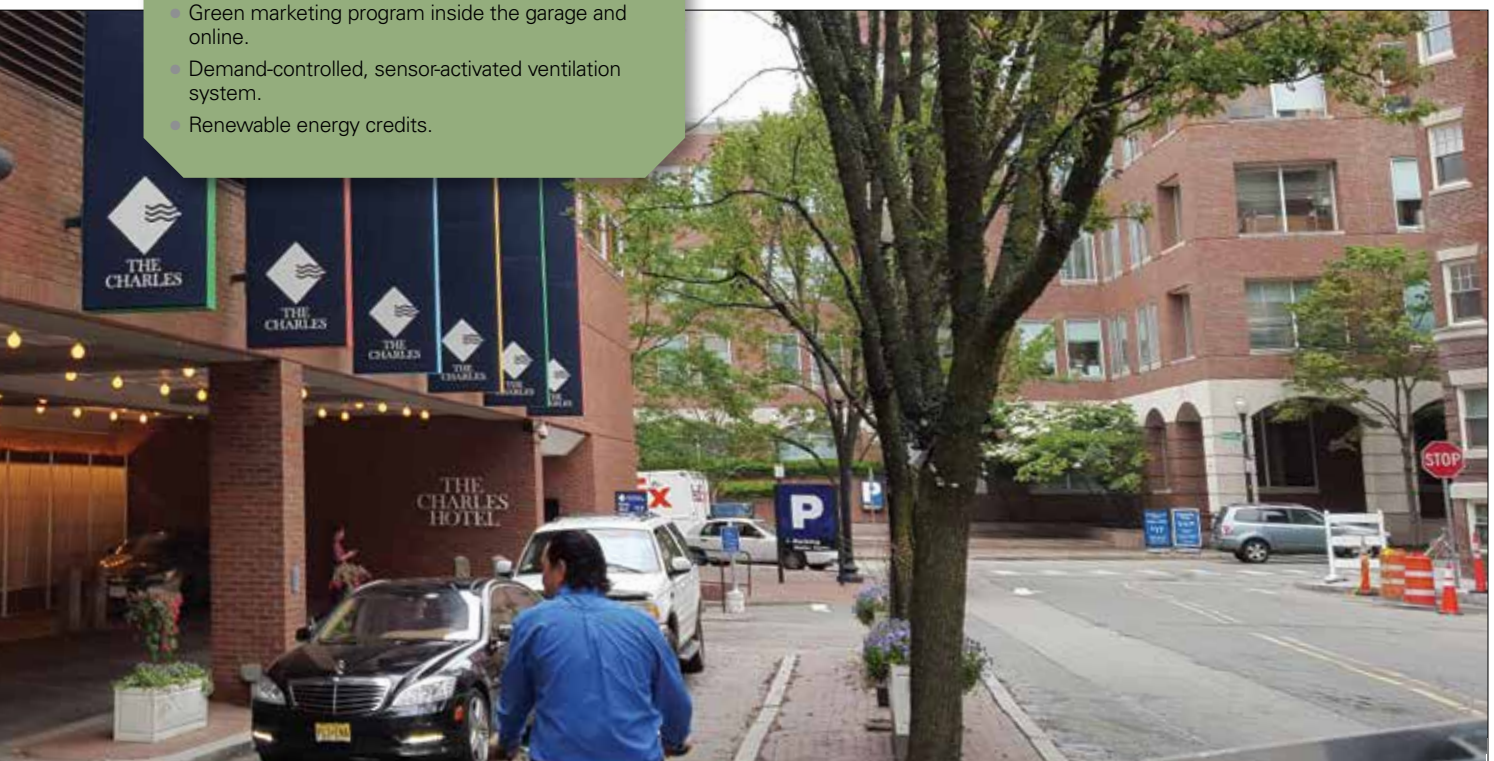
Green parking elements extend to the facility's management. The garage has a three-tiered pricing strategy based on vehicle size through which drivers of smaller, fuel-efficient vehicles enjoy discounted parking. There is also a shared parking program for tenants of the complex.





HIGHLIGHTS

- Extensive recycling program.
- Green cleaning practices.
- EnergyStar Portfolio Manager monitoring of energy use.
- Active placemaking.
- Green marketing program inside the garage and online.
- Demand-controlled, sensor-activated ventilation system.
- Renewable energy credits.





BANK OF AMERICA PLAZA

OWNER: Brookfield Properties

PARKING OPERATOR: ABM Parking Services

The garage at Bank of America Plaza in Los Angeles promotes sustainability in a property that is the very definition of being green. The 4.21-acre plaza features a 55-story Class A office tower—the fifth tallest building in Los Angeles—and expansive public space that incorporates lush gardens, 240 trees, and three waterfalls. It is a true oasis in one of the world's busiest cities.

The plaza's garage is an essential element in the property's commitment to sustainability. The nine-level subterranean parking facility offers 2,128 spaces beneath the plaza. The garage earned Green Garage Certification through a combination of sustainable design elements and management features that promote sustainability.

Green design elements include energy-efficient lighting and ventilation systems, both of which are operated through a sophisticated energy management system to achieve low energy consumption. The garage also promotes the use of alternative transportation in several ways, including an impressive bicycle storage room with showers, lockers, and tool station; direct access to multiple mass transit stations; a hybrid/EV carshare station; spaces reserved specifically for low-emission vehicles; and 10 EV charging stations that offer free charging for four hours. In addition to the 40 bicycle parking spaces located within the locked storage room, the garage also offers parking space for 60 additional bikes. The plaza also hosts an online portal that allows carpoolers to connect and arrange rides.

The garage features a number of impressive technological tools in addition to the energy management system. Efficient HVAC systems are controlled by 65 sensors and managed with schedules to ensure that fans only operate when needed. Also, a cogeneration plant uses natural gas to heat water or cool the chiller, with waste heat converted to electricity.

As impressive as these green design features are, the garage also promotes sustainability through its management elements. For example, 55 percent of the waste produced in the structure is diverted to recycling, and the complex boasts e-waste and compost programs. Additionally, loaner

permits are made available for occasional commuters, and these loaner spaces are oversubscribed to optimize space sharing among these infrequent patrons. A fleet of seven alternative fuel vehicles that operate on electricity and natural gas provides shuttle services to tenants. Finally, an onsite transportation manager assists tenants with connections to mass transit options or the property's compressed natural gas shuttles for large groups.

HIGHLIGHTS

- 125 percent oversell of spaces through shared parking.
- More than 50 percent of garage waste diverted from landfill.
- More than 60 percent of recent construction labor was from local sources.
- Placemaking initiatives.
- Two hybrid shared vehicles for patron use.
- 100 bicycle spaces.
- 60 carbon monoxide sensors control ventilation systems.
- Advanced lighting controls.





WESTPARK CORPORATE CENTER

PROPERTY MANAGER: Jones Lang LaSalle

OPERATOR: SP+

The garage at WestPark Corporate Center, Tysons, Va., offers 1,486 parking spaces, including 30 vanpool spaces. Green parking design features include six EV charging stations and high-efficiency lighting controlled by occupancy sensors that have yielded 30 percent savings in energy costs. Well-placed recycling containers and tenant recycling training minimizes material sent to landfills.

The center boasts many sustainable management and programmatic features, including shared parking with area restaurants. Permits are oversubscribed by 30 percent to further promote shared parking. Additionally, a robust alternative transportation plan educates users on mass transit alternatives and facilitates and encourages vanpooling. EV discounts and onsite charging encourage parkers to consider alternatives to traditional vehicles. Finally, a Green Globe-certified stormwater management program and efficient indoor water use combine to conserve water resources.

HIGHLIGHTS

- Restaurant and office shared parking with demand-responsive pricing.
- Proactive operational maintenance.
- Verified efficient mechanical and electrical systems.
- Active transportation demand management programs.
- EV charging at no charge and a rate discount for EV drivers.
- Discounts and free parking for carpools and vanpools.
- Sensor-controlled lighting systems.



HIGHLIGHTS

- More than 75 percent of construction waste diverted from landfill.
- More than 40 percent of construction materials were recycled.
- Verified efficient mechanical and electrical systems.
- Online reservations reduce patron circling.
- Reserved spaces for low-emitting and fuel-efficient vehicles.
- Payment system integrated with highway "fastpass" transponder.
- EV charging stations offered at no charge.
- High SRI roofing materials.
- Solar array and eight wind turbines generate clean energy.





CANOPY AIRPORT PARKING

OWNER: Och Zoff Capital Management Group

OPERATOR: Propark

Canopy Airport Parking, adjacent to Denver International Airport, was designed with the goal of creating the most sustainable parking facility in the world. Since opening, it has earned numerous environmental design awards, including an IPI Award of Excellence for sustainability.

The facility offers 4,207 spaces: 2,708 open-air; 1,021 covered; and 478 valet. Of those, 150 are designated as green vehicle spaces for low-emitting and fuel-efficient vehicles. It boasts extraordinary energy performance and is 80 percent more efficient than a comparable facility with sustainable technologies. Operations are partially powered by onsite solar and wind farms, and the building is heated and cooled geothermally.

Canopy is largely constructed of recycled materials, including recycled steel and shingles. Other design features include energy-efficient LED lighting throughout the facility and eight EV charging stations: four in valet and four in the covered self park area.

Canopy also features a number of green programs, highlighted by a rideshare program in partnership with Silver Car, a technology-based rental car company. Also, the facility recycles more than 50 percent of its waste by offering recycling stations throughout the facility. A stormwater management program utilizes advanced erosion and sedimentation control plans.

Canopy has earned widespread recognition within and outside Colorado, including several national awards. It was also featured on the Travel Channel's "Extreme Parking" program.



HIGHLIGHTS

- More than 50 percent of waste diverted from landfills.
- 120 percent oversell of spaces through shared parking.
- Green Seal-certified deck cleaners.
- Online reservations.
- Two carshare vehicles for patron use.
- Discounts for drivers of alternative-fuel vehicles.
- Free EV charging.
- Lighting controlled by occupancy sensors.

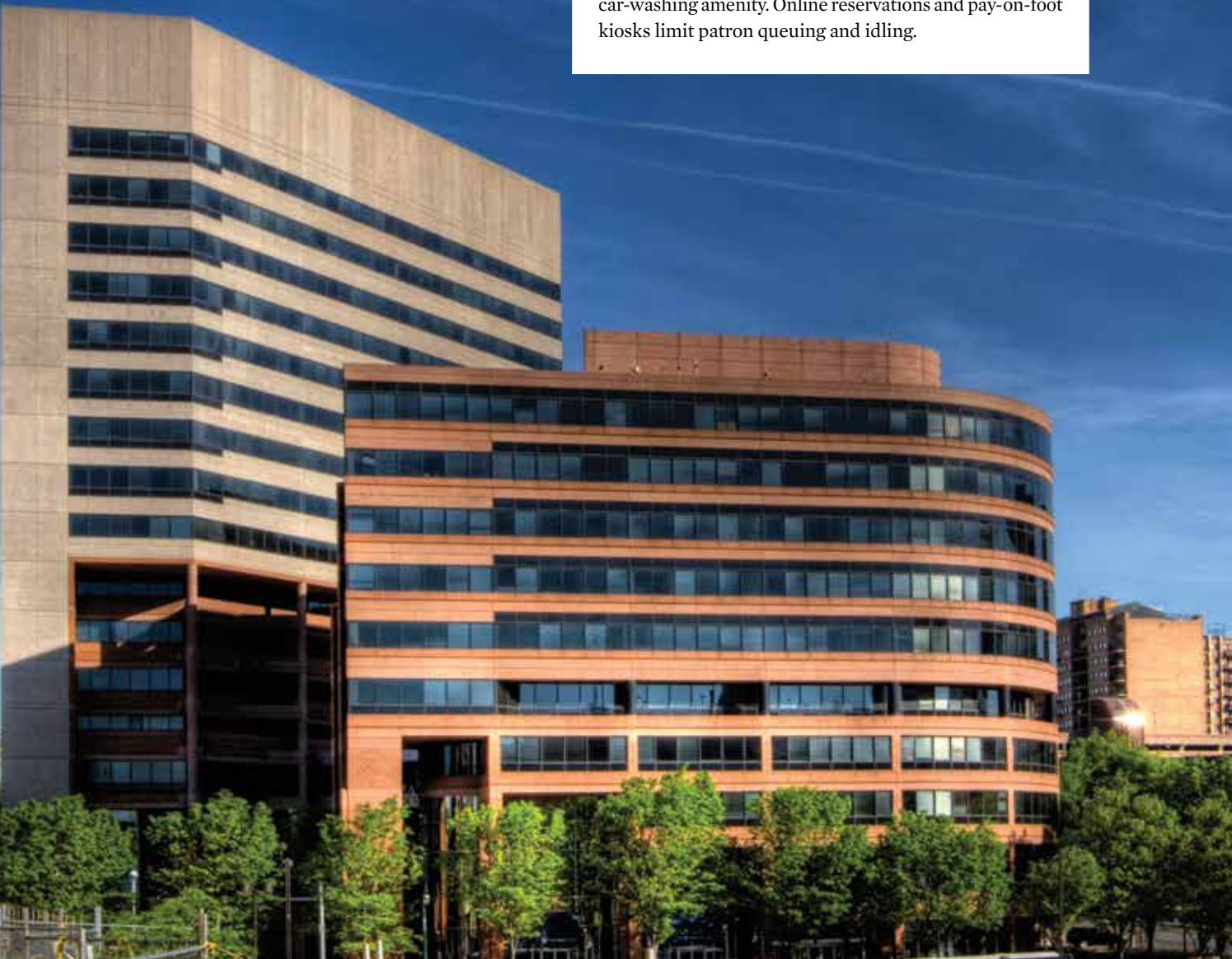
SILVER SPRING METRO PLAZA GARAGE

OWNER: Brookfield Office Properties

OPERATOR: Impark

This four-level subterranean garage is located minutes from downtown Washington, D.C., at the Silver Spring Metro Plaza. The mixed-use structure offers 466 parking spaces and 700,000 square feet of office space. The garage boasts several sustainable design features, including high-efficiency LED lighting managed by occupancy sensors that save 75,000 KWh. It offers two ChargePro EV charging stations and a bike room with space for 28 bicycles. Nine of the garage's parking spaces are dedicated to a rideshare program, and three others serve Zipcar users.

The garage promotes sustainability in a number of ways, including discounted parking for fuel-efficient vehicles. Also, stormwater management policies include water reclamation on parking deck washing and a waterless car-washing amenity. Online reservations and pay-on-foot kiosks limit patron queuing and idling.





BG GROUP PLACE GARAGE

OWNER: BG HOLDCO, LLC

OPERATOR: Winpark

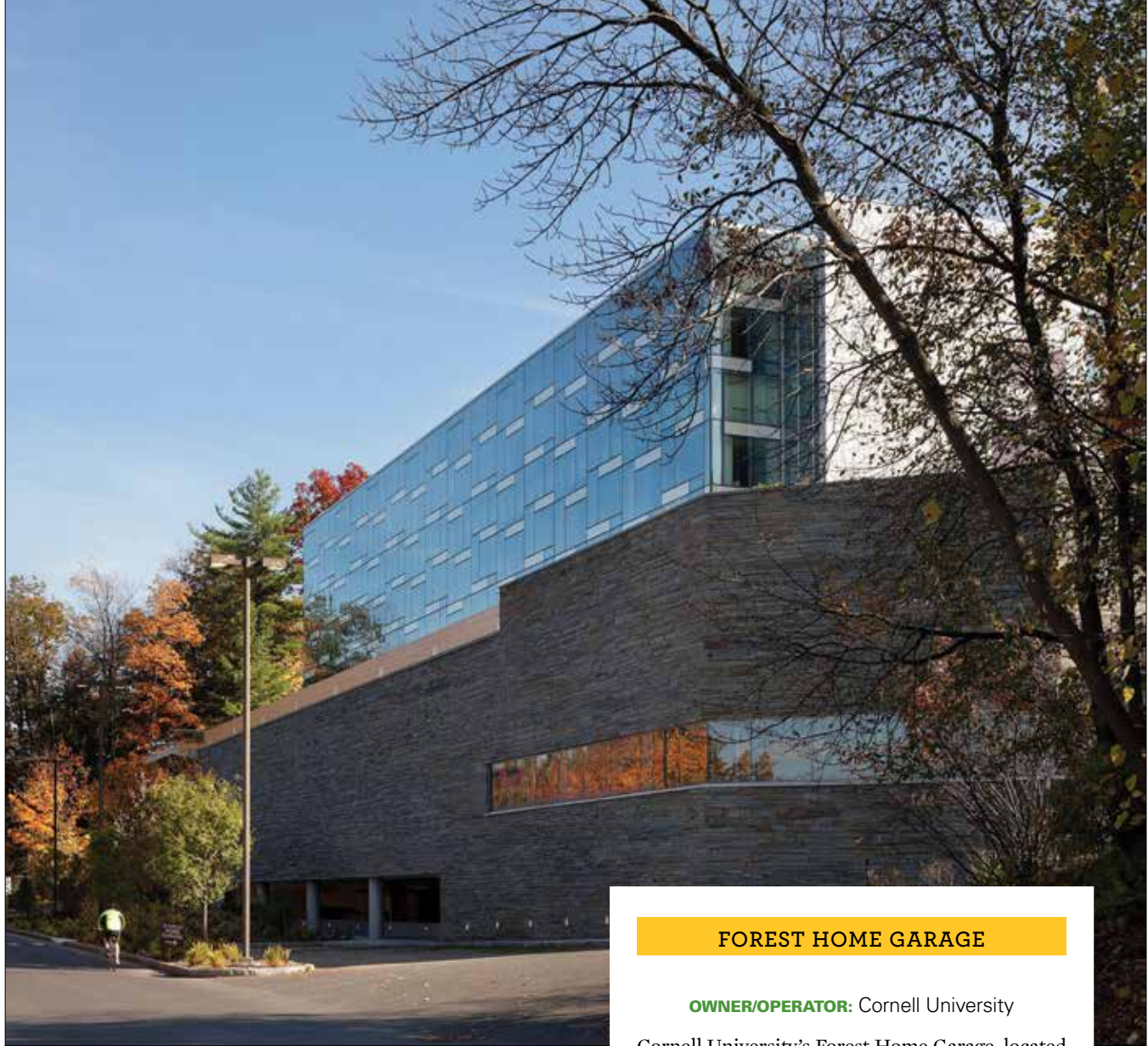
The BGGP Garage is a stunning, glass-encased parking structure adjacent to BG Group Place, a 46-story office building in the heart of downtown Houston. The 550,000-square-foot garage offers 1,118 spaces on 11 floors, two of which are below grade.

The BGGP Garage earned Certified Green Garage status through creative design elements and programs that promote sustainability. The signature feature of the design is a glass façade that, in addition to making the structure stand out as an architectural landmark, maximizes the amount of natural light that's introduced into the structure. The glass façade promotes sustainability by reducing the amount of electricity required to illuminate the interior of the garage. Electricity use is further reduced through the use of a sophisticated lighting control system that ensures lights are only turned on when needed. On the exterior, a rooftop garden reduces the building's heat island effect, and a condensate recovery system collects condensation from the building's air conditioning system to irrigate the garden. Other technological features include an automated vehicle identification system that allows passholders to enter and exit the facility without stopping and a system of carbon monoxide sensors that engages fans when CO levels exceed 250 ppm and shuts them off when levels drop below 100 ppm.

Programmatic and management features include several elements designed to promote alternate forms of transportation. The structure offers secure, illuminated, free bicycle parking with space for 16 bikes and a bicycle repair station. Fifty-six spaces—approximately 5 percent of the total—are reserved for fuel-efficient vehicles. The garage also offers premier access to the city's Metro Light Rail system and bus lines. Houston's B-cycle share station is also within walking distance.

HIGHLIGHTS

- More than 30 percent of garage waste diverted from landfill.
- Proactive operational maintenance manual.
- Verified efficient mechanical and electrical systems.
- Reserved spaces for low-emitting and fuel-efficient vehicles.
- Locator cards that educate patrons on the facility's sustainable attributes.
- Parker access to bike share program.
- Green roof.
- CO sensors that control ventilation.



FOREST HOME GARAGE

OWNER/OPERATOR: Cornell University

Cornell University's Forest Home Garage, located under the LEED Platinum-certified Human Ecology Building, fosters the university's mission of increasing energy use efficiencies and achieving carbon neutrality by 2035. The 254-space garage furthers the greening of the campus through both engineering and programmatic features.

The Forest Home Garage's sustainable engineering features include three EV charging stations and an HVAC system that includes 17 demand-controlled air stations throughout the structure. The garage's LED lighting system is controlled through an automatic programmable time clock that utilizes daylight sensors and calendar settings, and the facility offers covered bicycle parking for up to 30 bikes.

Programmatically, the university promotes space sharing by issuing 1,740 permits for the 254 spaces. The garage is also permit-restricted, which reduces wait and idle time by eliminating payment kiosks and booths. In addition to the EV recharging spaces (which also offer tire inflation), the garage also provides 38 spaces for ridesharing programs. **P**

HIGHLIGHTS

- More than 200 percent oversubscription of permits.
- ASHRAE Building Systems Commissioning.
- Public space placemaking.
- Financial incentives for rideshare users.
- Bicycle amenities, including spaces, showers, and restrooms.
- Landscaped areas featuring water-efficient plantings.
- LED dimmable lighting controlled by timers and photo sensors.



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